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(54) Title: METHOD AND SYSTEM FOR SELLING AND PURCHASING MEDIA ADVERTISING OVER A DISTRIBUTED COMMUNICATION NETWORK

(57) Abstract: A method and system for buying and selling media advertising opportunities over a distributed communication network, such as the Internet, provides a server on network including a database containing information pertaining to available advertising opportunities, such as advertising time slots in television programming schedules, provided by media content providers. The server provides buyers of the advertising opportunities access to the database over the network, whereby buyers may search the database and make offers to the sellers for selected advertising opportunities. Sellers of advertising opportunities access the database over the network to enter the information, receive bids entered by buyers, accept bids, and enter contracts into the server for communication to buyers over the network.

METHOD AND SYSTEM FOR SELLING AND PURCHASING MEDIA ADVERTISING OVER A DISTRIBUTED COMMUNICATION NETWORK

CROSS REFERENCE TO RELATED APPLICATION

This application is a continuation-in-part of application Serial No. 09/245,222 filed on February 5, 1999 by Justin Mark Del Sesto.

MICROFICHE APPENDIX

This application includes a microfiche appendix comprised of 13 microfiche and 1264 frames.

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates generally to methods and systems for conducting commercial transactions over a distributed communication network, such as the Internet (or similar network), and more specifically, the World Wide Web. More particularly, the present invention relates to a method and system wherein media companies and media advertising purchasers are able to sell and buy media advertising time or media advertising space, or a combination of advertising time and space, on a local, nationwide, or worldwide basis from a single site on a distributed communication network.

Background and State of the Art

The impact of developments in information technology and digital technology on the broadcasting and mass media communication industry is in its infancy. The advent and rapid development of the Internet and advanced digital television technologies herald an exponential increase in the number of communication, entertainment and information resources over those existing today.

This increase in media content will bring with it a concomitant expansion in advertising "shelf-space." The broadcast television audience, already splintered, will continue to fragment to other information/entertainment sources. Advertisers will need to become more astute in making media buying decisions to achieve their goal: that is, to reach their target audience in the most efficient manner possible.

The present system for the media (e.g., television and radio) advertising market is dominated by media agencies that sell advertising time for the media companies, and by the

internal sales forces of the media companies themselves. Each month, more options become available for media advertising placement, which buyers of advertising time do not presently have sufficient tools to evaluate. The entrenched agency/client relationship has caused media advertising, especially television advertising, to be overpriced in terms of its cost per thousand viewers (CPM). Advertising agencies buy particular media time for their clients based on their level of comfort with the research model that supports the medium, and not because it represents the most efficient way for the advertiser to reach its demographically targeted audience. This model is further reinforced by the bundling of media availability by media representatives for sale to buyers in packages, rather than selling the availabilities individually.

With the state of the advertising audience being as fragmented as it is, only to grow more so in the future, it is no longer sufficient for advertisers to reach just large numbers of viewers. Rather, there is a need for media advertising purchases to be closely targeted to a marketer's demographic. What is needed is a model that takes into account the broadcast networks' loss of share, the fast growth of new media platforms to reach audiences, and the blossoming digital environment which will create even more content viewing choices. Presently, no such model exists. Recent consolidations in the media representation industry has actually left media sellers with less options to sell their inventory of advertising time.

Another problem in the art pertains to advertising time that has been paid for by the buyer, but during which the buyer's advertisement or commercial did not air. This can be caused by a number of different factors, such as preemption by live events or special bulletins, power outages, errors and the like. For any such advertisement or commercial, the seller must "make good" on the contract by running or airing the buyer's advertisement at a later time, without further cost to the buyer. The seller must keep track of these "make goods" in the buyer's account by crediting the buyer each time a paid commercial has failed to run for whatever reason. More importantly, the buyer wishes to be able to verify that advertising time paid for was actually used to run the buyer's advertisement or commercial during the time and/or day specified in the contract. Conventionally, this has proved to be a daunting and costly task, especially in cases where the buyer may have multiple commercials or advertisements running in different geographical markets, at different times, over different days, and perhaps multiple times per day. There exists a need in the

art to simplify and reduce the burden and expense to the buyer to verify that he has gotten what he has already paid for.

BRIEF SUMMARY OF THE INVENTION

The present invention provides a solution to the problems and shortcomings in the art as described above, by providing a method and system for bringing media sellers and media buyers together at a central location over a distributed communication network, such as a server or whereby media advertising sellers are able to list their available advertising inventory (known as "avails" in the industry), media advertising buyers are able to input desired parameters of an advertising purchase, such as total budget, percentage of the budget to be spent by media type, desired demographics, cost per viewer (CPP), cost per thousand viewers (CPM), geographic region, and time period, and automatically retrieve matching avail results. Buyers are able to view demographic information for the available media (as compiled by demographic research entities), schedule purchases according to the budget, media split and desired demographics, and vary parameters within the search results to obtain a number of different scenarios. Buyers also are able to view previous bookings by quarter (or other time period) for particular avails, and previous offers for similar avails.

The present invention further provides a method and system wherein the central server enables buyers to make offers to media sellers on particular avails or groups of avails on-line, allows media sellers to receive all offers on-line and accept specific offers, modify specific offers, and enables the buyers to execute media purchase contracts and submit payment on-line. The system may interface directly with the accounting/ledger systems of sellers and buyers, whereby payment may be passed through the server directly to the seller from the buyer, and automatically update the parties' financial and accounting records.

The present invention further provides automatic verification for buyers that their ad or commercial actually ran according to the contract. The invention further provides a makegood bank wherein account of credits owed to a media buyer are automatically kept.

According to another aspect of the invention, buyers are able to upload to the server the actual commercial or advertisement in digital form, such as MPEG, AVI, JPEG, TIF,

GIF, BMP, Targa, etc. The seller then downloads the content in conjunction with the executed contract, and runs or plays the content during the specified time(s).

More particularly, the present invention provides a method for buying and selling media advertising opportunities over a distributed communication network, including the steps of providing a server on the network, the server including a database containing information pertaining to available advertising opportunities in conjunction with specific media content provided by media content providers, providing buyers of the advertising opportunities access to the database over the network, whereby the buyers may enter desired search criteria into a search engine and receive search results indicating particular advertising opportunities meeting the search criteria, the server further receiving bids on advertising opportunities selected by buyers from the search, and communicating the bids to sellers of the advertising opportunities, and providing sellers of the advertising opportunities access to the database over the network, whereby the sellers may enter the information, receive bids entered by the buyers, accept the bids, modify the bids, and enter contracts into the server for communication to the buyers. According to another aspect of the invention, a system is provided to carry out the above described method.

The invention further contemplates providing a data structure that includes "default" program listing which approximate future schedules, "locked in" program listings of the actual schedule, and break times and avail times both estimated and later actual, with precise time designations. The invention permits users to view these data structures such that a full schedule is always visible, with "defaults" filling in the gaps between the "lock-ins" and with breaks and avails overlaying the program listings, with ratings data also available to users.

The invention further contemplates the establishment of "campaigns" and "projects" to which the users may assign demographic, flight date, and other parameters. These facilitate the gathering of avails having particular demographics into "carts" of avails meeting certain budgetary requirements after user-interactive searching. These "carts" may then be broken up into "contract" sets of avails that may be exchanged between buyers and sellers during negotiations, with a complete audit trail being maintained. When sold, the avails then become "broadcast orders", and financial information flows into the accounting system. Similar mechanisms are used by sellers to arrange for the placement of promotional spots. Once the schedule is fully locked in and adjusted, error-checking

routines are run, discrepancies are corrected, and a complete "station log" or timetable is generated by the system.

The invention also contemplates extracting from the system log the times and identities of advertisements that should have been run, and combining and matching up this information with overnight ratings data and overnight data identifying which advertisements were actually run and when, such that records of discrepancies may be merged into the lock-in table and reports generated that can be used in "make good" negotiations between the buyers and sellers.

The invention also provides security arrangements, with master negotiator users at each buyer and seller able to create and authorize subsidiary users who may create second-level subsidiary users such that each user is limited in what he or she may view and alter appropriate to their position.

To manage a large volume of transactions over the Internet (or similar network), the present invention contemplates using arrays of program servers and database servers with multiple disk arrays sharing a common router that communicates with users having PCs with conventional Internet browser software programmed to provide views of multiple frames. General user passwords, session passwords, Internet (or similar network) protocol (IP) address verification, and timeout provisions enhance the security of the overall system.

Further features and advantages of the present invention are apparent in the detailed description which follows and in the microfiche appendix. The features of novelty which characterize the present invention are pointed out with particularity in the claims annexed to and forming a part of this specification.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will become more fully understood from the following detailed description of the preferred embodiments in conjunction with the accompanying drawings, in which:

FIG. 1 is a block diagram of a system for selling and purchasing media advertising over a distributed communication network, according to a first preferred embodiment of the invention;

FIG. 2 is a block diagram of a database contained the media marketplace server of Fig. 1, according to the first preferred embodiment;

FIG. 3 is a logical data model diagram of a method and system according to the first embodiment of the present invention;

FIGS. 4A-4U are diagrams of buyer process flows in the form of screen displays, according to the first embodiment of the invention;

FIGS. 5A-5R are diagrams of seller process flows in the form of screen displays, according to the first embodiment of the invention;

FIG. 6 is a flow diagram of process for automatically transferring advertisement content from a buyer to a seller in conjunction with the execution of a media purchase contract, according to the first embodiment of the invention;

FIG. 7 is a block diagram of a digital delivery system for transferring advertising content according to the first embodiment of the present invention;

FIG. 8 is an overview block diagram of the hardware and software system for a second embodiment of the invention, disclosed in Figs. 8 to 30, with Fig. 8 placing emphasis upon the hardware elements of the system, in an Internet (or similar network) environment;

FIG. 9 is an overview of the computer program system of the second embodiment of the present invention;

FIG. 10 illustrates in overview the more important data structures of the present invention, the details of which are described in Figs. 11 to 16;

FIG. 11 is an abstract perspective view illustrating how some of the data relating to specific broadcast programs, time slots, and available slots for commercials (avails) can be viewed by a user, such that the background data fills in any gaps within the foreground data;

FIG. 12 is a diagram similar to Fig. 11 illustrating the user view following the "lock-in" of broadcast programs, breaks, and avails;

FIG. 13 illustrates the structure of the project table in which "avails" are collected in "grocery carts" or "carts" which, during negotiation, are further broken up into "contracts", which may be parts of "campaigns" and "projects" for individual clients;

FIG. 14 illustrates the project parameters which the user may designate for any given project, and which may govern the system in the semi-automatic assembly of carts of "avails";

FIG. 15 illustrates the pre-processed ratings data which may be extracted from published broadcast ratings and which may then be associated with individual programs to assist in the matching of projects to avails.

FIG. 16 illustrates the hierarchy of users that is established within the system to control security, access to the system, and access to the data within the system;

FIG. 17 and 18 together form an overview block diagram illustrating the relationships between the various parts of the program system of the second embodiment of the present invention, with references to the figures where more details concerning any given program system may be found (in Figs. 19 to 30);

FIG. 19 is a block diagram of the user creation routine which allows new users to be added to the system;

FIG. 20 is a block diagram of the station initialization routine which permits a new television broadcast station to be entered into and made active within the system;

FIG. 21 is a block diagram of the creation of schedules routines which the broadcaster may use to define default schedules, to lock-in programming, and later to attach breaks and avails to the "lock-ins" and "defaults";

FIG. 22 illustrates the routines which govern the creation and population of carts containing arrays of avails;

FIG. 23 illustrates the pre-processing of published ratings data prior to its incorporation into the system;

FIG. 24 is a block diagram of the routines that integrate the ratings data into the "defaults" and "lock-ins" as well as into the "avails" in carts and contracts;

FIG. 25 is a block diagram of the routines that participate in negotiation between buyers and sellers;

FIG. 26 is a block diagram illustrating the procedure for placing promotional advertisements (as for non-profit groups and for the station itself) into the program schedule;

FIG. 27 is a block diagram illustrating the typical first and second passes of the station logging and error checking routines;

FIG. 28 is a block diagram illustrating, in brief overview, the accounting functions of the present invention;

FIG. 29 is a block diagram of the discrepancy reporting procedures carried out by the present invention following the broadcast of advertisements;

FIG. 30 is a block diagram of the "system doctor" procedure which checks for inconsistencies and errors in proposed schedules; and

FIG. 31 is a block diagram of the random survey ratings gathering and individual opinion capturing programs which can generate demographically organized ratings data for the system.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The following terms are used throughout the description that follows and are defined here for convenience:

Avail:	Space for an advertisement. For example, a thirty second spot in a television show, a thirty minute spot during evening hours for an infomercial, a slot on a page on the Internet, a full page ad in a magazine, a billboard, or a bus bench.
Billboard:	Indoor and/or outdoor advertising displays.
Book:	A ratings book presenting television or radio ratings and covering a period of time.
Break:	A period of time during a radio or television show when a series (or "pod") of ads may appear.
Cart:	A "grocery cart" full of one or more selected "avails". A collection of "avails", matching a particular demographic and flight, and grouped together by a television station for presentation to a purchaser of advertising or grouped together by a purchaser for presentation to one or more television stations.
CMR:	Competitive media reports. Third-party data that verifies the air time and air date of a commercial after it has supposedly been broadcast.
CPM:	Cost per thousand viewers.
CPP:	Cost per television ratings point, where a point represents one percent of the local viewing audience.

Creative:	The actual advertising copy, such as a video tape or MPEG-2 file containing the audio and video for a television advertisement.
Dayparts:	The breakup of the time of day into parts -- morning prime, morning, afternoon, primetime, late evening, etc.
Defaults:	Indication of what television shows are likely to appear, or would normally appear, at a given time on a given television station; subject to change when specific programs are locked into the schedule.
Demographics:	The nature of the audience that an advertiser desires. For example: "women 25 to 50". Also, the ratings for a particular audience segment.
DMA:	Designated market area. The nation is broken up into 210 separate designated market areas each containing numerous local radio and television stations, and each assigned a specific number from 1 to 210.
Flight:	An advertising campaign, and the period of days, weeks, or months over which it is to run.
GRP:	Gross rating points for multiple presentations of an advertisement summed up on a per day, per week, or per flight basis.
HUT:	Households using televisions. The total number of households that have their sets turned on at any given time.
Inventory:	All the "avails" that a television station, radio station, magazine, or other producer of "avails" has available to sell.
Lock-ins:	Specific television shows or television events that are definitely "locked in" to a particular broadcast time and date on a particular station. "Lock-ins" replace "defaults" as time passes and the station firms up its broadcast schedule.
Log:	For a given station on a given day, the precise schedule of which ads are to run at which precise times during which shows.

Make good:	Benefits granted to a purchaser of advertising time to make up for the fact that a given ad may not have run, may have run defectively, or may not have produced the types of ratings and demographics bargained for in the contract. Typically, "make goods" are additional "avails" on later dates or discounts on later purchases.
Platform:	The media onto which an advertisement is placed. Television, radio, Internet, magazine, billboard, etc.
Pods:	Time intervals in a television show when advertisements may appear grouped together to fill a break.
Print:	Newspapers, magazines, trade publications, and all other print media where advertisng is displayed.
Rate card:	A "card", generated and updated automatically by this system, that summarizes, for a television station, the time slots, content, and price of advertising.
Ratings:	The number of people watching a given show at a given time.
Share:	The percentage of the households using television watching a particular station at a particular time.
Television:	Any media content, no matter how transported, that is delivered to any television set, including among others: digital and analog; channel and broadband; over-the-air, satellite, and cable; rented tape and disk; and the like.
Traffic:	The actual delivery of advertising copy ("the creative") to a television station or other media outlet.

Fig. 1 is a block diagram of a system for selling and purchasing media advertising over a distributed communication network. A media marketplace server 101 is connected to multiple media seller clients 102 and media buyer clients 103 over distributed communication network 104. In the preferred embodiment of the invention, the network is the Internet, and more specifically the World Wide Web. However, for purposes of the invention, the network may be any distributed network that enables communication between servers and client stations.

The media marketplace server is also connected to a media research/rating database 105. The research database 105 represents media demographics and/or ratings information obtained by such firms as Nielsen (television), Arbitron (radio), IPro and NetGravity (World Wide Web), for content such as television and radio programming, Internet content, etc. For purposes of disclosure, the present invention will be described in the context of television advertising. However, the applicability of the present invention is not limited to television and in fact contemplates radio and Internet content providers, as well as publications such as magazines, newspapers, and periodicals, and can be extended to other spatial media providers such as billboard owners, transit companies, retailers, universities, or any other entity having the capacity to present advertising targeted to a specific demographic. For example, in the case of print media, advertising availabilities would be classified in terms of type of publication, section of newspaper, day of week of publication (newspaper), location within publication (magazine), month of publication, etc. For spatial advertisers, availabilities would be classified by such parameters as demographics, location, and exposure (number of viewers per period of time). Hereinafter, advertising time or advertising space will be referred to generically as an advertising unit.

The server 101 can be any type of known computer server system, such as products manufactured by Sun Microsystems, Hewlett-Packard, IBM or other manufacturers. The server 101 includes a database 200, containing data including the data shown in Fig. 2. Database 200 is preferably a Relational Database Management system (RDBM) such as marketed by Oracle, Sybase or other provider. In the preferred embodiment, the database is implemented as an Oracle RDBMS on a Sun Microsystems UNIX platform. However, other equivalent platforms may be used without departing from the scope of the invention.

As shown in Fig. 2, database 200 contains data records 201 pertaining to media buyers, media seller records 202, contract records 203, media (e.g., programming) schedule records 204, demographical/ratings records 205, buyer bid records 206, a smart agent search engine 207, publisher records 208, World Wide Web content provider records 209, a make-good bank 210, accounting system interface records 211, and advertising content (such as commercials and advertisements uploaded by buyers) 212.

The fundamental logical data model of the system is presented in Fig. 3. These logical items consist of business entities, attributes, and relationships between entities and attributes. The entities, attributes and relationships are used to define the database and to

ensure that paths exist in the database to the information required by the end users (i.e., media sellers and media buyers). The logical data model presented here is for purposes of full disclosure only, and is not intended to limit the possible logical data models that can be used in conjunction with the present invention.

Buyer 301 represents an individual in charge of buying advertising time or advertising space for a particular client, such as General Electric, and may also be responsible for multiple client accounts, such as an individual at an advertising agency. Buyer group number 302 represents individuals who can purchase on behalf of a single buyer for a specific client account or accounts.

Account Executive 303 represents a person in charge of actually attending to client accounts, such as tending to contracts between buyer and seller. Seller 305 represents, for example, a television network or television station with advertising inventory avails, or an agent acting on behalf of one or a number of stations independently. Contact 304 represents a parent record of Buyer 301 and Seller 305, and contains general information for both child entries, such as name, address, and telephone number. Daypart Card 306 represents dayparts defined by the seller for the particular station or network. The daypart card 306 is associated with Daypart entry 331, which contains a reference list of daypart names representing type of programming occurring at different times of day, e.g., early fringe, soap opera, prime time, etc. According to a preferred embodiment of the invention, the entire programming schedule of the station is already entered into the system by the marketplace server provider, for a predetermined time period, which may range anywhere from one quarter to ten or more years.

Rate Card 307 is a seller-developed cost per point for programs and times. The rate card may be divided into available category (such as preemptable, preemptable with notice, non-preemptable, etc.), and is usually developed by quarter (i.e., three month period) but may be changed weekly or more frequently. Make Good Offer 308 represents an offer from either the buyer or seller using make-good demographic points as currency for the purchase or buy.

Client Account 309 is an entry that contains the name of the advertiser for whom the buyer is buying. The Client Name Table 310 is a list that associates client names with client codes for translational purposes within the operating program. Budget 311 contains the amount of money allocated by a client for a buyer to spend on a particular avail

purchase or on a campaign. Campaign 312 contains targeted buy request information from a client, such as pertaining to a particular product, time of year (e.g. Christmas season), a product launch, or product visibility throughout the year. Product Name Table 313 is a list that associates product names with product codes for translational purposes. Shopping (Cart or) List 314 contains a grouping of selected "avails," or available advertising time slots, to be bid upon by a particular buyer or account executive for a particular buy.

Program Listing 320 contains a schedule of shows and showtimes for the seller. Avail 319 indicates a piece of time available for a commercial to be shown during a program. Show Aired Status entry 321 indicates whether the commercial aired or not. If not, then credit is due to the buyer and will be reflected in the make-good bank in the client account. The aired status is determined by obtaining data on aired commercials from providers such as Competitive Media Research (CMR), Nielsen Sigma Services, or Wink.

Buyer Bid 315 contains a specification of information such as rating points, demographic, and frequency of the commercial on the show, from a buyer to a seller regarding an avail or group of avails. Avail bid 318 indicates a relationship between an Avail and a Buyer Bid.

Frequency 317 indicates how often and when (week of) a commercial should be run or aired. Contract 316 contains an agreement between buyer and seller as to the terms and conditions of an avail buy. The contract is derived from the Buyer Bid. Nielsen Book 322 is a quarterly report from the Nielsen rating company that shows overall ratings, demographic group ratings, and specifically named demographic ratings for individual television shows. The book 322 also may represent overnight information such as Nielsen overnight ratings (local and national), or research provided by Wink. Demographic Data entry 323 contains the categories of demographic data (e.g., working woman) used by Nielsen to determine overall ratings. Demographic Specifics entry 324 contains demographic identifiers used by Nielsen to group viewers and establish a rating based on the number of viewers of that group.

Smartagent 326 contains search criteria developed by a buyer to refine the search results of availability searches in a particular regional market, demographic, daypart, etc. Projected Rating Calculations 325 contains calculations used by a buyer to determine a projected bid for a specific buy.

Show Name table 327 is a reference list of names of shows that are aired by broadcast stations (actual or projected). Market Table 328 contains a list of market names. County Table 329 is a reference list of identifiers for counties, such as values A, B, C, and D, each associated with a population density. Demo reference table 330 contains a list of demographic criteria names, as used in Nielsen ratings, to be used by a buyer in formulating a search with the smartagent. Station Identifier Table 332 is a reference list of broadcast station call letters.

The operation of the system and method will now be described, from the point of view of the interactive operations of a buyer and of a seller on the system, using as an example the case of broadcast television station or network sellers, and buyers seeking to purchase advertising time on such broadcast stations or networks.

Buyer Actions

Figs. 4A-4U illustrate the interactive operations of a buyer on the system, in the form of screen displays that a buyer sees on her computer display monitor, and interacts with to carry out desired functions. At Fig. 4A, the buyer inputs his or her user name and password (which have been previously set up with the system in establishing a buyer account) in order to log on to the system. After the buyer has signed on to the system successfully, the buyer is presented with options such as shown in Fig. 4B. Here, as shown, the buyer may select from a stored list of clients a particular client account to work on, create new client accounts, select specific products forming the subject of advertisements or commercials, work on stored campaigns for particular client accounts, or create new campaigns. In addition, the buyer may perform administrative functions such as changing his or her password or updating the advertising agency's account, or may simply browse the avail database.

If the buyer chooses to create a new campaign or to view stored shopping lists, he or she clicks on the appropriate icons and will be presented with a display as shown in Fig. 4C. Here, the buyer may create new shopping lists (wherein a shopping list would contain a grouping of selected avails for particular target markets, such as Detroit, New York, etc.) and specify a search profile to be used by the smartagent in conducting a search of the avail inventory, or may work on stored shopping lists previously created. To establish a primary search profile, the buyer would enter desired "flight" dates (i.e., dates

on which the advertisement or commercial would be run or aired), desired markets (divided by county or other appropriate geographical regional market identifier), desired dayparts (e.g., soap operas, prime time, early fringe, etc.), and desired category of show or program. Additionally, the buyer may calculate bargaining parameters (such as rating, CPP, CPM, etc.), and may include bundled deals and late avails in the search criteria. The buyer also may browse the avail market or view contracts and make-goods (as will be described below) by selecting the appropriate icons.

To create a shopping cart or list, after entering the search profile parameters, the buyer enters a name for the list and selects a number for the market, and selects the "create" icon. The buyer is then presented with a display as shown in Fig. 4D. The system will display a list of avail sets by station in the selected market (e.g., county) and will indicate the day and time, show category, daypart, demographic information, number of avails (i.e., the number of available advertising slots for that show), the number of avails already selected by other bidders, the last rate offered by the seller, the last price offered by a buyer, and the status of the avail set. Instead of indicating the number of avails for each show, an avail status indicator could be displayed, such as "open," "tight" or "closed."

The buyer may then edit and run a search for the shopping list market number, as shown in Fig. 4E. If the buyer wishes to edit the search criteria, he or she clicks on the indicated icons to modify those entries. Once the buyer wishes to run the search, he or she clicks on the "run search" icon. Fig. 4F shows an example of a screen display of the search results. The search results indicate station, county, daypart, show category, program (or bundle name), calculation results, cost, number of avails, and late avail status, and may be listed in sequence according to any of those parameters. The search may be edited and run again by clicking on the "edit this search now" icon, which will return the buyer to the screen of Fig. 4E. The buyer also may apply the search results to the shopping list by clicking the "apply to shopping list" icon, which returns the buyer to Fig. 4D. At this time, the buyer may wish to work on a specific bid. The buyer clicks on the "view bid" icon, which brings the buyer to Fig. 4G.

As shown in Fig. 4G, the buyer will see the seller's start price for the avail set by station, and will enter in the buyer's counter to the seller's offer for the avail set. The buyer will also see a demographic code, and is able to enter the buyer's proposed rating for the avail set. The-buyer also may indicate whether the avail set is desired to be credited

against a make-good obligation on the part of the seller. After entering the bid offer and proposed rating, the buyer may calculate cost by clicking on the "calculate and show cpp" icon.

The buyer may view the status of the make-good account (Fig. 4K) and the Nielsen ratings for the programs (Fig. 4U) by clicking on the corresponding icons. The buyer further enters any special comments in a field reserved for such comments, and also optionally enters a desired frequency for the commercial to be run. The buyer then has the option of saving the edits and holding the defined search, sending the bid to the seller, viewing the contract for the bid (if it has been accepted by the seller), viewing past contracts with the seller, or deleting the bid.

If the buyer wishes simply to browse the avail market (see Fig. 4B), the buyer will be taken to a display such as shown in Fig. 4H. Here, the buyer enters smartagent search criteria similar to those entered in Fig. 4C, and clicks on the "start search" icon. The search results are then displayed to the buyer in a form as shown in Fig. 41. At this time, the buyer may select a campaign, apply the search to a selected shopping cart or list, or create a new shopping cart or list.

Fig. 4J shows a display for viewing and editing the buyer's market budget status, which the buyer may select as a function from the display of Fig. 4D. The buyer enters desired demographics codes, gross ratings point (GRP), and maximum cost per point (CPP), to arrive at a total budget for the demographic. The display further indicates the budget status to date with respect total amounts spent for each desired demographic.

If the buyer wishes to view contracts and the status of the make-good account (see Fig. 4C), the buyer clicks on the corresponding icon and is brought to a display as shown in Fig. 4K. The buyer may view contracts by client or by product (Fig. 4L), or may view make-good bids awaiting either buyer attention or seller attention (Fig. 4Q). Fig. 4L shows an example of contracts listed by contract number and identifying flight dates, market codes, stations, and whether the contract represents points, credit, or share. The station inventory may be searched and applied to a make-good bid, as shown in Fig. 4M. The buyer inputs search parameter to search the station's inventory, and clicks on the "search" icon. Fig. 4Q shows make-good bids awaiting buyer attention. Fig. 4N shows the results from searching the station's inventory. The buyer then may choose a particular avail set to apply to either a new make-good bid, an existing make-good bid, or to an existing shopping

list. Fig. 40 displays an interactive screen for preparing a make-good bid. The buyer views the seller's starting price and enters into the appropriate field the buyer's counteroffer. The buyer also may view the contract pertaining to the make-good credit. If the "late status" box is checked (Figs. 4F, 41), the buyer may view a late avail set for a bid to a seller, as shown in Fig. 4P. Late avail sets represent avails in the near future which have not been sold, and thus the seller has entered final prices for them (presumably significantly reduced from the seller's starting price). The buyer may send the bid on the late avail to the seller, or may delete the set and change the demographic code to search for other avails to bid on.

Fig. 4R illustrates the details of a contract for which make-good credits are owed by a seller. Fig. 4S shows the details of a contract as sent to the buyer from the seller. The buyer may view the frequency details of the contract (as shown for example in Fig. 4T) by clicking on the corresponding icon. If the buyer agrees to the contract, the buyer indicates agreement and sends the contract to the seller by clicking on the "buyer agrees" and "send to seller" icons. Fig. 4U shows a display for the buyer to enter a program name and date to view Nielsen rating data for that program, when the buyer has selected the "view Nielsen" icon from a display screen.

Seller Actions

Figs. 5A-5R illustrate interactive actions to be taken by a seller. After inputting the seller's user name and password in Fig. 5A, the seller is presented with the choices shown in Fig. 5B. The seller may view and update his or her avail inventory (Fig. 5D), may view contracts and make-goods owed to buyers (Fig. 5I), may create and edit rate cards (Fig. 5C), and may process incoming bids (Fig. 5G). The seller also may carry out account administration functions, and change his or her password from this screen.

Fig. 5C illustrates a screen for the seller to create and edit rate cards. Each program indicates the day and time of its broadcast, the avail category (preemptable, preemptable with notification, or non-preemptable) and the price in the case of a late avail. As shown in Fig. 5D, the seller can view and update the seller's inventory by day and time span, or by program/bundle or daypart. Once the parameters are selected, the seller clicks on the "go" icon to be brought to the display of Fig. 5E. This screen shows (in seconds) the day(s) and showtime of specific programs, the rate, and the number of avails (all the inventory) existing for each week of a specified time span. The seller also may store

default schedules into the future and from those default schedules spawn parent and child lock-in schedules, or compare one to another for projectionsw of inventory financials once a programming schedule has been locked-in by the station. Avails then can be attached to or associated with lock-in parent or child schedules, and selectively released to the public as desired by the seller as time goes by.

Specific avail sets may be edited as shown in Fig. 5F. This screen displays the prices for each avail category, the number of starting avails, the number of avails sold through the marketplace server (DR), the number of avails sold through other channels, and total avails remaining, in addition to number of bids pending. The seller may decide to show the number of avails or an avail status to buyers, and may select particular numbers of avails for the system to release either immediately or on selected dates. The seller may choose to show rates to the buyers or not, and may override a preset default rate.

Fig. 5G illustrates incoming bids sent to the seller. A particular bid may be viewed by checking the appropriate field and clicking on the "view" icon, which takes the seller to Fig. 5H. Fig. 5H displays the bid information entered by the buyer as previously described (Fig. 4G). The seller may view the contract for the bid (Fig. 5P), view previous contracts (Fig. 5J), reject the bid, or accept the bid and return it to the buyer.

If the seller wishes to view contracts (Fig. 5I), the seller enters desired dates, and the resulting contracts will be shown as in Fig. 5J. The seller may select a contract to view its details, as shown in Fig. 5K. The contract may be selected according to various parameters such as buyer, product, campaign, etc.

The seller may create a special bundle inventory (see Fig. 5E) by entering the program information as shown in Fig. 5L. The seller may offer make-goods by entering information to search the seller's inventory as shown in Fig. 5M. Fig. 5N illustrates the results of the inventory search. The seller may apply the results to a new make-good bid or to an existing make-good bid (Fig. 5O). Fig. 5O contains information similar to Fig. 4O as described above. Fig. 5P shows the details of the underlying contract pertaining to a particular make-good owed to a buyer, as explained above with reference to Fig. 4S. The seller may view the contract frequency details as shown in Fig. 5Q. Fig. 5R illustrates the display for a seller to enter information necessary to view the Nielsen rating data for a particular program.

Fig. 6 illustrates a process for automatically providing the seller with the buyer's commercial or advertising content once the buyer has accepted the seller's contract for an avail or avail set. At step 601, the buyer accepts the contract by selecting the appropriate screen display icon. At this point, the accounting system interface of the media marketplace server may interact on-line with the accounting systems of the buyer and seller to effect payment for the contract. At step 602, the buyer uploads the advertising or commercial content to the server 101. At step 603, when the seller views the accepted contract, the seller is able to download the buyer's content from the server 101, and integrate it into the seller's programming system for airing at the agreed upon time(s).

Fig. 7 shows one example of a digital delivery system for the transfer of commercials or other advertising content between buyers and sellers according to the invention. A digital alpha server 701 is in communication with the equipment of various sellers, such as cable operator 702, TV station 703, or Web content provider 704, via SMOS network 705. Each of the sellers may have a high speed connection, such as T1 connections 706a, to the network. Additionally, the server 701 may have a number of high speed connections, such as T1 connections 706b, to the network. The server 701 is provided with a large memory storage device such as storage 707 for storing advertising content, and also is provided with a content viewer, such as MPEG decoder 708. A plurality of clients 709a-709c are connected to the server, either through a LAN or WAN device such as Ethernet, or through Internet connections. In operation, the clients 709a-709c enter advertising content into their systems, convert the content to digital format (such as MPEG files), and upload the content to the storage 707. Sellers 702-704 then are able to download the content from the storage 707 to their own systems via the SMOS network. Alternatively, the server 701 may upload the content to the sellers in conjunction with the transmission of accepted contracts.

The second preferred embodiment of the present invention is illustrated in Figs. 8 to 30, and is described below. Its details may be found in the microfiche appendix which forms a part of, and is hereby incorporated by reference into, this detailed description.

This second embodiment is directed towards the selling of television station advertising time. However, the basic principles of this invention and this embodiment are equally applicable to selling "avails" for any kind of advertising "platform," such as radio, the Internet, magazine and newspaper ad pages, billboards, bus benches, and the like. The

basic underline principle of purchasing "carts" of "avails" for "flights" covering certain time spans and directed to particular "demographics" remains the same in all of these environments, television being probably the most difficult platform to automate and therefore the best to illustrate the present invention. In addition, when searches are performed for avails matching particular "demographics" and the like, a search can be a "cross-media" search, searching avails for several different types of "platforms" simultaneously and thereby giving the buyer an opportunity to do cross-media, one-stop shopping. A single geographically focused search, for example, could cover TV, radio, regional magazines, and billboards.

The market is made up of sellers, in this case television stations, having an inventory of available time slots for commercials, or "avails", that they wish to sell. While the seller may have an inventory of avails, the actual inventory may not be disclosed to the buyer. From the buyer's perspective, the inventories of avails essentially never appears to be sold out. The sellers need to define their "inventory" in terms of the program offerings available at different times of the day, week, month, and year. The station needs to associate each time slot with some indication (such as past ratings performance) of the value to the purchaser of advertisements placed within that time slot. Then the station must define "avails," where an avail is an available advertising time position within a given program's time slot. The station defines "avails" for internal purposes but does not release the actual inventory to the buyers. Avails are defined in terms of time so that as they are sold stations can schedule their broadcasting logs in real time. Records of oversold positions are maintained to alert the seller of inventory and scheduling mismatches so the seller may take corrective action.

The buyer might be a large company wishing to advertise its products or services or the representative of such a company, or any intermediary agent. For each product or service, the buyer may have its staff, or an outside consultant, design a "campaign" that presents, over time, messages to consumers about the availability of that particular product or service. The messages may be broadcast regionally (east coast, west coast, etc.) or they may be broadcast nationally, or they may be directed to specific stations or targeted locally by zip codes. Typically, the message is presented over a series of "flight" dates that may precede and overlap the introduction of the new product or service to the marketplace. To gain a regional focus, a campaign may be focused upon selected "DMAs" or selected

stations within certain DMAs. There will almost always be a project budget associated with a campaign. In addition, a target audience is defined by means of a primary demographic and possibly one or more secondary demographics (women, 25 to 50; and teenage girls, for example). The buyer may have a time preference for its campaign, such as prime time, in the morning, or afternoon--this is a specification of the "dayparts" for the campaign. Start and stop times may also be specified.

The present invention is an automated way of enabling and facilitating the marketing of avails from the inventory of sellers to the buyers. It is designed to facilitate the assembly, by the seller in some cases, and also by the buyers in secret and without any knowledge by or assistance from the sellers, of "carts" of avails matching particular characteristics. The invention then goes on to arrange for an on-going negotiation between the buyers and the sellers of these carts of avails, complete with negotiation, changes, and audit-trail records maintained of the negotiation history. At the same time, the invention is designed to assist the sellers in moving over time, gradually, from a "default" presentation of estimated programming content to "locked-in" programming, where each hour of each day is definitely and finally assigned to a specific program; and onwards to the general assignment of "avails" to program times (the seller creates avails and defines the total amount of advertising time per program, and the avails are not always specific to a pod and/or position); and finally to the specific locking in of each avail to a specific time within a specific break within each given program; and then awards to the automated development of the programming "log" which enables the proper broadcasting schedule to be set up by the station and maintained. The log may also be developed automatically by the system placing commercials according to a frequency agreed to in negotiations between the buyer and seller. In that manner, for example, 50 avails spread over a 4-week flight and assigned to a daypart or program can be purchased without the seller having to place the avails individually into the schedule, and without the buyer having to buy each spot individually. The invention further contemplates automating the delivery of the "creative", possibly by directed digital transfer, server to server, in MPEG-2 or some other similar compressed digital format. Following the showing of the advertisements, the invention integrates the digital overnight ratings results, including CMR data, in with the avails to facilitate the development of post-broadcast reports and the negotiation of any necessary "make goods" in cases where advertisements are not actually shown or are shown defectively or do not

achieve the bargained-for ratings performance. Inclusion of CMR data, obtained from third parties and verifying the air time and air date of commercials, creates a verification of each broadcast and assists the seller with fraudalent billing control. The invention is also designed to provide accounting information to enable billing and collection and to permit all parties to maintain much better control and understanding of the content, cost, and results of any given advertising campaign.

With reference to Fig. 8, an overview block diagram is presented of a complete media advertising marketing system 800 that implements the present invention in an Internet (or similar network) environment. The programming system of the present invention (Figs. 17 and 18) are contained within an array of essentially identical servers 802, 803, 804, and 805 all of which share a common router 806 which is interconnected with the Internet 808. The Internet then connects to any number of clients 809, 810 and 811 which may be individuals located at seller sites, such as television stations and their agencies, and at buyer sites, such as manufacturers of goods and services and their agencies. The data structures of the present invention, shown in overview in Fig. 10, are maintained on a plurality of Oracle database servers 820, 821, and 822 interconnected by an Ethernet network 812 and through controllers 814 and 815 to a plurality of disk arrays 816 and 817. To cause the entire media advertising marketing system 800 to function as if it were a single server, a single Oracle database, and a single disk array from the point of view of the clients, a common single data dictionary 818 is maintained on a disk array 816 which allows for coordination of all the activities such that the router 806, any time it receives a message from one of the clients 809, 810, and 811, may route that particular message to any available server, which can then access its own dedicated Oracle database server, which can access the appropriate disk array over the Ethernet network 112.

By way of illustration, the Oracle database servers 820, 821, and 822 could be Sun Enterprise 5000 machines, from Sun Microsystems, Inc., Palo Alto, California, all running the Solaris version of UNIX and also running Oracle, Version 8.0.5. The front end servers 802, 803, 804, and 805 could be Sun Ultra Enterprise 450 computers from Sun Inc., also running the Solaris version of UNIX. On the front end servers, the vast majority of the web pages, which serve as the programming heart of the present media advertising marketing system 800, are written in Cold Fusion Version 4.0, and they run under Cold Fusion, provided by the Allaire Corporation, Cambridge, MA. Cold Fusion is a server

scripting language for creating web pages with computations, and it provides an interface using the SQL database query language to Oracle servers. As the system load grows, it may ultimately be necessary to port the system software over to the C programming language (C++) to gain improved performance. Cold Fusion facilitates such porting. Networking is provided by Netscape Enterprise Server Version 3.5. The router 106 could be the router "BIG/ip" from F5 Networks, Inc., 200 First Avenue West, Suit 500, Seattle, Washington 98119-4801.

The reason why such a flexible and expandable system is contemplated for the present invention is that ideally numerous employees at and representatives of numerous television broadcasting stations and numerous buyers at different locations will all be sharing the media advertising marketing system 800 all at the same time, browsing the data, collecting avails into carts and contracts, and negotiating the sale and purchase of the avails. For that reason, the design of the Internet hardware configuration must be readily expandable to match the growing load of users. All of the users, through the common data dictionary 118, will in essence be sharing the same media advertising marketing system 800 and the same data; but their work will be spread out over numerous Oracle database servers and numerous front-end servers, with each user being reassigned by the router 106 to a different front-end server and Oracle database server each time the user sends in a query or command to balance the load across the servers.

Fig. 9 presents an overview of the media advertising marketing system 800 focusing only upon the software elements of system, and accordingly treating the system as if there were only one Oracle database server 820, one front-end server 802 running the Cold Fusion web page routines and sub-routines which constitute a program system 824, and one client 810. It will be understood that through the technique shown in Fig. 1, the simple model of Fig. 2 can be extended to cover many hundreds of users who are, in essence, simultaneously using what amounts to a shared media advertising marketing system 800.

The client 810 is simply a personal computer interconnected to the web server 802 through the Internet and running Netscape navigator. For the preferred embodiment of the invention, Netscape is preferred over other browsers, such as Microsoft's Internet Explorer, because Netscape can be configured never to retain a page in its cache. Netscape, if configured correctly, always fully reloads a page from the central server every time a new request goes out to the server for that page without fail. This is essential,

because the preferred embodiment of the invention, as defined in the microfiche appendix, will frequently send out a slightly different configuration of what is named as the same web page in response to a second or third or later request for that same page to be displayed.

The window 826, visible to the user at the client work station 810, is broken up into four frames 828, 830, 832, and 834. As is well known to those skilled in Internet programming, the window 826 is thus broken up into 4 frames each of which can display its own independent web page to the user. The frame 830 is a static frame that displays general information about the program that is running. The frame 828 displays identification information, and the web page associated with that frame is also programmed to store variables for use by the other frames. In particular, pointers 836 to the Oracle database are maintained within the user workstation so that when sequential queries are sent to the web server 802, those queries contain the pointers which may be used by the server 802 to access the Oracle database server.

Information for navigating among the media advertising marketing system 800's programs (within the program system 824) is displayed in a frame 832, where the user may select to jump among the program system 824 routines which are shown in overview in Figs. 17 and 18. While Figs. 17 and 18 are shown in flowchart form, the actual navigation between the flowchart elements is often controlled by the user making selections in the frame 832, and thus navigation may not proceed in the strict order shown by the arrows in those Figs. 17 and 18 which are simply illustrative of a normal or typical process for the media advertising marketing system 800's operation.

Data is displayed to the user in the frame 834 which is the largest frame on the screen. This frame may be scrolled, and the user may also perform operations upon the data through the frame 834, popping up sub-windows as needed, and thereby submitting data or making requests, as can be done with any normal Internet display page. In particular, the "user's view" of the television programming defaults, lock-ins, breaks, and avails illustrated in Figs. 10 and 11 appears to the user in the frame 834 such that the data elements shown farthest to the left in Figs. 10 and 11 are superimposed over and hide the data elements shown more to the right in those two figures, so that the user sees the composite of the layers of information laid on top of each other in accordance with how far the station has progressed at any given time and on any given date with locking in definite

programming content, arranging and positioning breaks, and assigning specific avails to specific time slots within the breaks.

Every programming system includes both data structures and programs. The data structures of the preferred embodiment of the present invention are illustrated in overview Fig. 10, and more detailed representations of the data structures are presented in Figs. 11 through 16. The program system is illustrated in overview in Figs. 17 and 18, and the details of the program system are presented in Figs. 19 through 30. Anyone wishing to gain detailed knowledge of the precise data and program structures is referred to the microfiche appendix where those details are set forth in the high level "source" programming language "Cold Fusion" in the form of a series of server web page descriptions. The data structures of the present invention are inherent in the database calls made by those page descriptions to an industry-standard Oracle database system.

With reference to Fig. 10, the data structures 1000 of the present invention are shown in overview.

A user's table 1002 contains the identification code of each system user, together with the password for that user. Each table entry also points to a separate record 1006 that contains information controlling each user's ability to access data within the system as well as various user options concerning how data is to be displayed and other user options. Since many thousands of users may have access to the system, it is important for the sake of security that all users be properly identified and that they only be given access to information associated with the corporate identity for which they work or information some other corporate entity wishes them to have access to or otherwise information which they are authorized to access. For example, when radio stations post their schedules and also post information concerning available advertising opportunities ("avails"), this information is generally made available to everybody who can use the system. But modifications to this information can only be made by staff members of the particular broadcast station maintaining the schedule. Likewise, the seller's and buyer's project tables 1014 are maintained in confidence for each seller and for each buyer, and are not available to other buyers and sellers unless specifically transferred to them in the form of an offer to enter into a contract or an e-mail communication.

When any user is actually logged on to the system, the user must enter the proper user code and password, which are then matched against the information in the table 1002.

Once the user is connected, an entry is made into a log-in table 1008. In this table, the entry for each user that is on-line contains the user identification, a temporary identification that will vary from session to session, the "Internet protocol" (or "IP") address of the computer from which that user is communicating to the media advertising marketing system 800, and a record of the last time when that user was heard from, as indicated at 1010 within the table 1008. All of this information is maintained to ensure the security of the system. During the course of an interaction between a user and the system, each time a message is received from the user, the user I.D., the temporary user I.D., and the Internet protocol address of the machine where the user is located must all match up with the prior entry in the log-in table, and the message must arrive within a half hour of the last time a communication was received from the user. If more time then that elapses with no message from a user, then the entry 1010 is cancelled, and the user is assumed to have logged off the system. Each time the user contacts the media advertising marketing system 800, the time entry "LASTTIME" in the record 1010 is updated to reflect the most recent time that the user had contact with the media advertising marketing system 800. Optimally, the system will encompass all media platforms (TV, Radio, magazines, billboards, etc.) in a single system so that the buyer can manage and perform cross-media buys. The first module of the system to be implemented, and the focus of this invention disclosure, is television. But it is to be understood that the invention is intended to be used to tie all of the media together under one coordinated campaign.

The preferred embodiment of the invention is designed for the marketing of advertising time by individual television stations all across the country. For marketing purposes, the nation is broken up into DMA's (designated marketing areas) the top 20 of which correspond to the nation's major cities. Accordingly, this DMA information is stored within a table 1028 which lists the names of the regions associated with each DMA and useful information concerning each region. Information on the individual stations, organized by call letters, including the DMA to which each station is assigned, is stored in a call sign information table 1026. The information in the two tables 1026 and 1028 is relatively static, only changing when a station changes its call letters or goes out of business or alters information such as its address or telephone numbers or the names of its representatives.

The master schedule table 1020 contains entries for each station indicating which "default" schedules of that station, or which generic default schedules, will be effective over what range of times and dates. The default table (1136 in Fig. 11) contains, for example, several default schedules (or "defaults") for a typical day, and for a typical week, each applicable during a particular date interval (summer, winter, etc.). Since "daypart" assignments may vary in their assigned time slots from station to station, default "dayparts" may also be defined ("prime time," "evening news," etc.). The master schedule table 1020 then indicates which of these "defaults" is to be effective over which range of dates for each broadcast station seller. These ranges of dates go back in time and forward in time to cover all past and future dates that might be relevant. Note that this is not a "hard" schedule of what is actually going to be broadcast or what has actually been broadcast in the past, but simply a very simple "default" schedule replicated many times to produce an approximation of the actual schedule. Accordingly, the actual quantity of information in the tables 1020 and 1136 is relatively small. With reference to Fig. 11, whenever any user of the system views (see user view 1130 in Fig. 11) through the frame 834 (Fig. 9) the schedule for a station, if no programs have been locked in at table 1104, and no advertising break entries have been made at table 1106, and only "default" avails are available at table 1108, nonetheless the user will view defaults 1102 listing programs such as the default programs 1110, 1112, 1114, and 1116 over a range of years and will thereby get some idea of the type of material that the station will be broadcasting, or has broadcast in the past. Likewise, if they view a station's rate card, it will show the default daypart assignments. Accordingly, the master schedule table 1020 and the seller's default table 1136 together create a "default" schedule lineup for each broadcast station which is always there to fill in the gaps between any programming which the station has actually "locked in" to its actual broadcast schedule. As any given day in the schedule approaches the calendar date upon which it becomes the actual broadcast day, the lock-in table 1104 (Fig. 12) becomes gradually filled up, more and more, with "locked in" programs that form the actual schedule for the station. The user view at 1130 sees more and more of the actual schedule that will be broadcast, and less and less of the defaults, until finally none of the defaults 1102 are visible to the user as the user scrolls the frame 834 within the window 826. And the "rate card" for the station is also updated automatically to reflect the "locked-in" material.

A station employee may view a "lock-in" right away. Buyers can be prevented from viewing any particular "lock-in" until a "release date" that may be specified when the "lock-in" is created.

The rate cards are updated in the following manner: When lock-ins are created, they have a frequency specified, such as "m-f" (meaning Monday through Friday), for example. The building of a rate card begins with this information. The program checks each lock-in to insure, for example, that "Deep Space Nine" is really on for that full week and the surrounding weeks; and it notes any discrepancies. The program also checks to make sure that the important parameters (price, etc.) are all the same. If not, such discrepancies are reported on the screen so that the user can make an informed judgment as to what parameter values should be included in the rate card. From this information, the program generates the rate cards automatically. The rate cards list out the programs and parameters in a fairly common, simplified format, for people to view and to study. The program also scans the weeks around the current week, looking for any special one-time events (for example, the British Open, or "The Opening of Capone's Vault" or the like), to make sure that nothing spectacular is omitted from the rate card. The system also provides for rate card levels - different rate cards with different pricing structures that can be provided to different customers (depending on their volume of business, for example, some customers may be offered discounts).

The rate cards are generated dynamically from the lock-in tables. Accordingly, any time a station employee requests a rate card, they get the very latest schedule, including recently-entered lock-ins and changes.

At 1012, in Fig. 10, the system maintains tables of schedules and avails for every seller, which in this case means for every broadcast station. Fig. 10 illustrates two seller tables 1016 and 1018, but clearly there can be many more, one for each broadcast station that is part of the media advertising marketing system 800. The details of the schedules and avails tables are best understood by comparing Figs. 11 and 12 which illustrate the status of those tables at two different times prior to a given broadcast date. In both Figs. 11 and 12, the user is assumed to be viewing an Internet screen window 826 frame 834 (Fig. 9) from the user view 1130 at the left-hand side of each drawing, so that material in the columns towards the left of each figure will shade and thereby mask from the user view 1130 the

material in the columns towards the right, as indicated by the dashed shading lines in both figures.

In Fig. 11, the user view 1130 reveals to the user information pertaining to a 1-hour television viewing time slot defined by the default program 1116 followed by 3 half-hour time slots defined by the default programs 1114, 1112, and 1110. These might correspond, for example, to a 1-hour network broadcast followed by two half-hour network broadcasts followed by a half-hour news broadcast by the local station. If no programs had been "locked in", then the "lock-in" table 1104 would be empty, and the user's view at 1130 would simply reveal the default programs 1110 through 1116, overlaid by the default break table 1106 and avails table 1108 entries as shown. The default regions would indicate generally what shows are likely to be in those time slots.

In the particular example shown in Fig. 11, the local station has locked in, at 1118, a specific show or program which takes the place of the default program 1112. Accordingly, the user's view at 1130 sees on the screen the "lock-in" specific show 1118, rather than the "default" program 1112. Likewise, a program 1120 has been locked in over the 1-hour default time slot of the program 1116, so that the user sees the program 1120 rather than the program 1116, which is shadowed and blocked from view. But no programs have been locked in over the time slots of default programs 1110 and 1114. Accordingly, when viewing this information in the frame 834 on the screen 826 (Fig. 9), the user sees the programs 1120, 1114, 1118, and 1110. The user sees a full schedule, even though only the programs 1118 and 1120 represent locked-in information relating to the actual broadcast schedule.

Every locked-in program, such as those represented by the programs 1118 and 1120, is assumed to include break time for advertisements. Accordingly, a break table 1106 presents at 1122 and 1124 break table entries indicating the total estimated amount of time within each program segment that is to be allocated to advertisements. This total time is fixed for "inventory" purposes. And for each of the break table entries shown in the table 1106, the avails table 1108 has an "avail", or advertising time slot entry, that is available for purchase. In the figure, the advertising time slot entry or avail 1126 is shown superimposed over the break table entry 1122 which is superimposed over the program 1118 in the user's view 1130. Likewise, the advertising time slot entry or avail 1128 is superimposed over the break table entry 1124 which is superimposed over the 1-hour

program 1120. Since the vertical axis in Fig. 11 indicates time, the time allotted to these avails and the time allotted totally to the break time is indicated generally by the height of the avails 1126 and 1128 and break table entries 1122 and 1124, which shadow and block the user's view of the background programs 1118 and 1120. But at this point, the break time indicated in the break table 1106 by the break table entries 1122 and 1124 has not yet been broken up into individual breaks and assigned specifically to individual break times scattered throughout the program. This assignment can be done at any time and is normally done a day or two before the programs are broadcast, when the log is built. Likewise, eventually multiple avails are assigned in groups or "pods" to each of multiple breaks dispersed throughout each program. But some weeks before this programming is actually to be aired, these details may not have yet been entered into the media advertising marketing system 800. Nonetheless, the system is up and functioning fully and is able to facilitate the marketing of advertising time between buyers and sellers even though the information in the system is far from finalized. As another option, break table entry defaults and avail defaults can be superimposed over the default programs 1110 and 1114.

With reference to Fig. 12, the seller's schedules and avails are shown with respect to the same locked-in program 1120 within the lock-in table 1104, with the time axis in this figure expanded in the up and down direction so that the 1-hour of program time extends from the bottom to the top of Fig. 12. It is now just a few days before the broadcast date, and accordingly no defaults 1102 are visible at this time, since the lock-in table 1104 contains programs for every hour during the entire broadcast day. The lock-in table program 1120 still contains the basic information for the 1-hour program, such as the name and nature of the show as well as its past ratings performance and/or estimated future ratings projections, where the estimates come from the station's management. These projections come from manipulating third party data (e.g.: A.C. Nielsen data) all within the system. But there have been changes in the break table 1106 and avails table 1108 entries. Whereas in Fig. 11 the break table entry 1124 was presented as a single unit, in Fig. 12 that break time has been broken up into five separate break table entries 1212 through 1220 which are now positioned accurately with respect to where the breaks will appear within the broadcast program. Each break table entry 1212 through 1220 indicates the positioning of a pod of avails. For each such break table entry, the break table 1108 is shown to contain four 30-second avails 1222, 1228, and 1230 or two 30-second avails together with one 60-

second avail 1224 and 1226. The user's view at 1130 now reveals a program 1120, the precise time position of the break table entries 1212-1220, and precisely where the avails 1222-1230 are positioned within the breaks. And from the broadcast station's perspective, the avails 1222, 1224, 1226, 1228, and 1220 may represent specific broadcast orders and specific advertisements that are to be run at specific times.

With respect to Fig. 10, the remaining central data structures of the invention are the seller's and buyer's project tables 1014. The project table for a buyer A 1022 is depicted into Fig. 10 along with the project table for a seller B 1024. These represent efforts by the buyers and sellers to collect sets of avails that have particular characteristics, to exchange them, and to negotiate over how much is to be paid for them in the formation of a contract.

With reference to Fig. 13, a more detailed representation of particular project tables is shown at 1014.

The first project table entry 1304 is for a user 1302 identified as client A. This user could be a buyer or a seller, and this example illustrates the collection of avails into campaigns, projects, and carts prior to the making of an offer. Optionally, the user structures a campaign A 1306 which, in the case of a buyer, may be all of the projects related to a given product, such as "Diet Coke" for the Coca Cola company, for example. Within the campaign, a plurality of advertising projects may be defined; and in the figure, project A 1307 and project B 1312 are shown. Associated with the project A 1307 is a related set of data called the project parameter table 1314 defining various things about this project which aid the system in locating appropriate sets of avails for inclusion in the project in avails carts A 1308 and B 1310.

Referring to Fig. 14, the project parameter table 1314 is shown in much more detail. Fig. 14 is set up such that the data structure of the project parameter table is shown to the left, and exemplary data that might appear in that structure is shown to the right. Let us assume that the project A 1307 is directed towards the flight dates May 1, 1999 to June 1, 1999 and towards shows designated by the reference record as relating to the "NBA Playoffs". The DMA's, and possibly the stations targeted, are indicated either by DMA numbers or by station identification, or both. In the example, the ad campaign is directed towards one Washington station, two New York stations, and one Los Angeles station, rather than being directed to an entire DMA or to an entire region of the country. The

acceptable drop-out times for the campaign are designated as 1 p.m. to 3 p.m. in the afternoon. The length of the times desired to be purchased are 60-second advertising spots. The media type in this case is television spots. The present invention could, of course, be directed towards other types of advertising platforms, such as billboards, the Internet (or similar network), magazines, and the like, and can be arranged to handle these simultaneously, so that multi-platform searches can be performed. A budgeting parameter may be specified either overall, or broken up into so much budget per DMA (Direct Market Area). In this case, there would probably be an overall budget, and the DMA's themselves are not targeted. The demographics of the viewing audience in this case is primarily set to men 18 to 30 and secondarily to men 50 to 60 and men 13 to 18.

With reference back to Fig. 13, it can be seen that each seller's and buyer's project, in essence, contains demographic, flight, DMA and station, drop-out, length, media type, budgeting, and reference record information and possibly other information that not only define the nature of the campaign but that also, from the perspective of the media advertising marketing system 800, define a search criteria which will then be used to search the database of avails in a semi-automated fashion, looking for those appropriate to the needs of the buyer or seller who are assembling the avails into carts to be presented to the opposite party for negotiation. System security (discussed below) gives a seller search access only to its own inventory of avails; sellers may only view their own rate cards, and are not privy to any other seller's rate cards. Buyers, on the other hand, can access all the sellers' inventories and rate cards with the permission of the sellers.

The project table entry 1324 in Fig. 13 illustrates a possible entry for a client B, a user 1332, who is a buyer and who is about to make an offer to a specific seller, or perhaps to a number of sellers. Having collected a cart (not shown) full of avails, client B now wishes to negotiate with the various sellers for advertising time. Accordingly, the system has taken the avails which were contained within the single cart (not shown) and has broken them up among a series of contracts 1330 and 1332 each directed to a particular individual seller, such as the individual stations WJLY, WTTI, WMBC, and KNBC shown in Fig. 14. The four contracts (only two are shown) are then linked together by a data structure called an umbrella 1328 which now takes the place of the cart within the project 1325. The four individual contracts, once assembled with their respective avails, are now shipped off by e-mail to the sellers to begin the negotiating process.

A typical seller, such user 1342 identified as client X in Fig. 13, having received a contract 1350 from a buyer, would review that contract in the context of the project Z 1348. Since a contract received by a seller normally relates to only one given buyer, there is no need for an umbrella data structure such as that illustrated at 1328. Accordingly, either a buyer or a seller may create a cart of avails in accordance with particular demographics, convert the cart to a contract or several contracts under an umbrella, and then ship the contracts off to the other side as offers to commence negotiations. During negotiations, the contracts of avails are revised and shipped back and forth until there is an agreement between the parties signified by both acceptance and acknowledgement. At that point, the avails become broadcast orders, which are governed by the respective contracts.

With reference again to Fig. 10, included among the control information and user options 1006, the primary bit of control information is the user hierarchy information illustrated at 1600 in Fig. 16. This information defines, for each system user, an "owner" in the form of another system user who created, manages and has the power to control all of the system users which that user owns, as well as those owned and created by the ones which that user owns (no data is ever destroyed). In addition, each user record contains control information defining a corporation code identifying to which corporate entity that user belongs and therefore identifying to which information on the system that user has access.

The highest ranking user in the user hierarchy, the one who has access to and who can change any data structure within the system, is a user named "SYSTEM MANAGER". Accordingly, the control information record 1602 for "SYSTEM MANAGER" indicates the owner of his or her record is "SYSTEM MANAGER", and the corporation code is SYSTEM MANAGER". Typically, the "SYSTEM MANAGER" works for the company that is maintaining the media advertising marketing system 800 and its servers on the Internet, and not for any seller or purchaser of commercials. "SYSTEM MANAGER" creates one or more users named "COMPUTER ADMIN." whose control information record 1604 indicates that the owner of the user "SYSTEM ADMIN." SYSTEM MANAGER", and his or her corporation code is "COMPUTER ADMIN.". There may be several such administrators each with his or her own name. "SYSTEM ADMIN.", who also presumably would work for the company that is maintaining the media advertising marketing system 800 and the servers, is able to access virtually all system files and records

other than those which "SYSTEM MANAGER" has prohibited access to. In a given system, there might be a number of individuals at the level of computer administrator performing different functions and having corporate codes which allow them to create records and files that others, having different corporate codes, cannot view or change.

When a corporate seller of "avails" or a corporate buyer of "avails" wishes to bring his or her corporation into the media advertising marketing system 800, a single representative of the corporation is designated as the master negotiator for that corporation. "COMPUTER ADMIN.", who works for the company maintaining the media advertising marketing system 800, creates individual user control information records in the user table 1002 for these master negotiators. In Fig. 16, a television "STATION A" master negotiator control information record 1606 is set up, the owner of which is "COMPUTER ADMIN." and the corporate code for which is "STATION A". A buying entity, such as an advertising agency or corporation, has a master negotiator designated "BUYER A" "COMPUTER ADMIN." establishes "BUYER A" on the system as a user with control information record 1612 again designating the owner to be "COMPUTER ADMIN." and designating the corporate code to be "BUYER A". Accordingly, one master negotiator user is set up for each television station and for each entity that wishes to buy "avails" from the television stations.

The master negotiators are then able to create multiple users at each television station and at each buyer location that are, for example, the head of sales, the head of accounting, the chief trafficking officer, and the executive officers for each television station; and the head of purchasing, the head of accounting, and the various chief executives for each buyer of avails. For example, in Fig. 16 the station A master negotiator sets up a station A sales department head as user "STATION A SALES" by creating control information record 1608 with an owner "STATION A" (meaning owned by the station A master negotiator) and with the corporate code designation "STATION A". The head of sales, in turn, may set up a control information record 1610 for each sales person, such as "ST. A SALESMAN X" shown in Fig. 16. The record 1610 for each such sales person would indicate its owner to be "STATION A SALES" (meaning the user record is controlled and "owned" by the sales department manager at station A), and would contain the corporate code "STATION A". Likewise, the user "BUYER A PURCHASING", the head of the purchasing department at "BUYER A" (control

information record 1614), can set up user accounts for the various employees at "BUYER A" who participate in the planning and execution of campaigns, including the collection of carts full of avails and the negotiation of contracts. (Not shown in Fig. 16).

In this simple manner, each user on the system is created by, and is the responsibility of, some higher-level user of the system, who can remove that individual from the system on short notice or alter that individual's permissions or authorizations. But at any given level within the hierarchy of users, what rights, privileges, and authorizations a user has and what records a user can see and what records a user may change are determined by the user's position within the hierarchical ordering of users within the system. The various television station's program schedules and avails, illustratively shown in Figs. 11 and 12, for example, are available for all the media advertising marketing system 800 users to view, but they may only be modified by employees whose user identification indicates they are associated with the same corporate entity as the individuals who created and are maintaining those program schedules. And when it comes to project tables and entries, each user may only have access to his or her own project tables, but a higher-level user will have access to the project tables of a lower-level user. And the mail system, represented by the messenger table 1030 in Fig. 10, is similarly controlled as to whom may access and view what.

A general overview of the complete program system 824 is set forth generally in Figs. 17 and 18. However, while the two figures are drawn as flow charts where program control appears to proceed over arrowed paths from one functional programming block to another, the actual system is more flexible than this, since it is implemented as a large number of web pages implemented on the Internet with facility for any user to browse through the pages and to jump from one to another in fairly arbitrary directions. Accordingly, it is possible for a given user of the system to browse among the program elements shown in Figs. 17 and 18 in an order other than that indicated by the arrows, which are simply generally indicative of the process of setting up and using the system, creating and marketing the avails, generating the program log, and then finally carrying out the accounting and error checking functions, including discrepancy reporting. All the actual possible flow paths are indicated in the microfiche appendix appended to and forming a part of this detailed description.

Briefly described in overview, the program system 824 includes a user creation routine 1900 (Fig. 19) which enables users of the system (above the lowest-level users) to create and launch new users on the machine, control their passwords, and also control what information they may have access to and/or alter. In the case of a new user who is a master negotiator for a television station, a station initialization routine 2000 (Fig. 20) creates for the television station the data structures shown in Figs. 11 and 12; the avails, break, lock-in, and default tables that enable programming for that station to be viewed by users of the system who may be that station's sellers or who may be buyers wishing to browse through the station's inventory on their own. Employees of the station may then call upon the creation of schedules routines 2100 (Fig. 21) that allow and facilitate the creation of schedules, including defaults, lock-ins, break tables, and tables of avails and the routines 1702 that generate reports. The schedules and avails tables 1100 are arranged as shown in Figs. 11 and 12 which have already been described.

Once the media advertising marketing system 800 has been set up, and buyers and sellers have been established as users of the media advertising marketing system 800, then these various users may go into the system, browse through the offerings of the stations, and create and populate carts of avails, under the control of the creation and population of carts routines 2200 (Fig. 22). (Note that a station cannot browse through the inventory of other stations and cannot view the rate card of other stations; but stations may control which buyers are privileged to view the station's own rate card). The carts are maintained in the user project tables 1014 and appear as shown at the top of Fig. 13 (1308 and 1310). Once a cart is created, it may be broken up into contracts (1330 and 1332 in Fig. 13), and then the individual contracts can be transmitted to another opposing party as part of a negotiation under the control of the negotiations routines 2500 (Fig. 25). The contracts 1330, 1332, and 1350 (Fig. 13) may be modified and exchanged until such time as a seller and a buyer reach an understanding, at which point one party accepts and the other party acknowledges the acceptance; and then the "avails" become "broadcast orders" which the station must thereafter fulfill.

With reference to Fig. 18, the placing promotions routines 2600 (Fig. 26) assist station staff members in identifying and placing promotional advertisements into their schedule.

The broadcast orders having been agreed to, the "creative" (the advertisements to be broadcast) must now be delivered to the television station. Traditionally, this is done by simply mailing the station a 1-inch tape cassette containing the advertisement that is to telecast. The present invention contemplates that in the future these transfers will be done with compressed video, typically compressed in accordance with the MPEG-2, MPEG-3, or MPEG-4 video compression standards to reduce the amount of information transferred. The data is transferred over the Internet, or over dial-up digital lines from the server of the buyer's advertising agency or other producer directly to the server of the television station (arrange delivery of the creative 1802 in Fig. 18). At the station, the "creative" is stored on a hard drive and is broadcast directly from the server without the need to manipulate any video cassette.

Prior to the day of a broadcast, it is necessary for the station's trafficker to build a detailed schedule of what material is to be broadcast at what time. Accordingly, station logging and error checking programs 2700 (Fig. 27) of the present invention perform detailed error checking and correction on the scheduled information, as well as on the number of "avails" sold, reporting any discrepancies or over-sales for correction. These programs then generate a complete station log, which may be transferred in digital format directly to the equipment that actually controls the operation of the station. Alternatively, this information can be printed and entered manually into the computers that control the station.

The accounting programs 2800 (Fig. 28) perform accounting functions and assist the station in generating bills and in keeping track of receivables relating to the sales of advertising time.

A discrepancy reporting function is carried out by the discrepancy reporting programs 2900 (Fig. 29). By accepting information from SIGMA or CMR or some other outside entity that reports the actual identities of the advertisements transmitted and the times at which and the stations over which those advertisements were broadcast and by comparing that data to data within the media advertising marketing system 800, a completely detailed report can be generated for use by the sales staff of the station to report any failures to completely broadcast advertisements and to facilitate the onset of so-called "make good" negotiations, where further avails may be assigned to a buyer make up for

those avails that were not broadcast, or where adjustments in the price of future billings are made to compensate for any such discrepancies.

For the benefit of both the buyer and the seller, the media advertising marketing system 800 is designed to include routines that generate a variety of useful reports 1702 (Fig. 17).

For the sellers, inventory reports can be generated indicating generally what shows are scheduled and when, what "avails" are sold, what avails are not sold, and at what price avails are selling. To assist an individual sales person, the reports may be sorted by advertiser, any time period, with totals, by sales person, by the whole station, or by any combination of these that might be helpful or useful. And for the benefit of the general manager, the system can generate reports by quarter, by advertiser, and by sales person.

After an advertisement is run, both the general manager and sales person can gain a report that compares the projected and the actual ratings performances, that list "make goods" or make-up ads organized in various ways, and that list accounts receivables. With respect to the "make goods" list, these are broadcast orders that are internally labeled "make good" orders by the media advertising marketing system 800.

To facilitate the generation of various reports and also to keep track of negotiations, contracts and broadcast orders are marked internally, and all audit trails are kept whenever the status changes.

For the buyers, reports can be generated of what they have bought, with various figures giving them some indication of the type of avails they have obtained through the negotiations.

For a given contract order, a buyer may wish to know the "CPM" or cost per thousand viewers. They may wish to know the "CPP" or cost per point, where a point is one percent of the total possible viewing audience in a given DMA (designated market area). Of course, they would want to know whether or not the ad ran, and they might wish to compare the estimated CPP to the actual CPP after the advertisement runs and the actual ratings are known.

Another report interesting to buyers is the "GRP" or gross rating points, meaning the total number of ratings points that were captured in a series of advertisements. Buyers are interested in the GRP by day, by week, by "flight", or by "demographic", meaning how many ratings points were achieved among women 25 to 50, for example. The present

invention enables the buyer to generate these reports both in the case of avails that are offered for sale and also in the case of final contracts, both before and after the day the advertisements run. The purchasing manager of a buyer, wishing to monitor individual employee performance, will want to know how much each employee is spending as well as the CPM and CPP performance of each purchasing employee.

A buyer in the direct telemarketing business, running infomercials (for example, a two minute advertisement with an 800 number), will want a computed cost per order and therefore needs to know how much he or she is spending on advertising per each hour of the day and per day. This data can then be combined with sales data per each hour of the day and per day to give "advertising cost per sale" data.

One of the greatest advantages of the present invention is that it permits the buyer, independently of the seller, to generate many of these very useful reports rather than the buyer always having to be dependent upon the seller's marketing staff for this type of information. The buyer can enter its entire budget into the system, yet keep it secret, and the buyer can find collections of avails without contacting any station and without the stations knowing what the buyer is doing.

The details of the programs, just described in overview, are set forth in Figs. 19 through 30.

Fig. 19 describes the user creation routine 1900 that guides the higher level users through the process of creating a new lower-level user on the system. At step 1902, the new user record is created and entered into the user table 1002 to become a record such as that at 1004 in Fig. 10. Next, at step 1904, the privileges of the user are set in the control information and user options 1006. Next, step 1906 creates for the user a skeleton project table (such as the tables 1022 and 1024 shown in Fig. 10 and as illustrated in more detail in Fig. 13). At that point, the process for creating a new user is completed. However, if this is a new master negotiator for a new television station not previously on the media advertising marketing system 800, then the test at step 1908 transfer programs controls to step 1910, where the station initialization steps described in Fig. 20 are carried out.

With reference to Fig. 20, whenever a new television station is created and initialized within the media advertising marketing system 800, a routine 2000 is called upon. The routine 2000 first registers the company code for the new television station and arranges for that code to be associated with all records and with all new users of the media

advertising marketing system 800 that are associated with that station (step 2002). Then blank entries are created for that station, including a blank entry in the master schedule table 1020 (step 2004) (of course, this first "default" schedule will soon be changed). In addition, and with reference of Fig. 11, an avails table, a break table, and a lock-in table are combined into a new table for this new television station seller that is included among the schedules and avails tables 1012 (Fig. 10). Initially, the new avails, break, and lock in tables 1108, 1106, 1104, are empty or contain only default break and avails entries.

With reference to Fig. 21, once a new television station has been added to the media advertising marketing system 800, employees of that station, entered into the system as users by the master negotiator for that station, may proceed to create locked-in schedules, breaks and avails. In this they are assisted by the creation of schedules routines 2100 comprising a series of web pages which guide them through the steps of designing the scheduling.

A first routine 2102 permits a station employee to create new "default" table entries 1136, for example, to design and have displayed the schedule for a typical week that is replicated and then displayed as the "default" schedule during a particular season (covering many weeks) of one or more years. The routine 2102 assists the employee in making entries into the master schedule 1020 which defines the ranges of dates over which each default schedule is to be effective for each station, thereby enabling the entire range of dates of interest to be very quickly populated with repeated instances of a small number of default schedules, thereby promptly getting the media advertising marketing system 800 up and running with very little expense and programming time. This is done long before the final programming is known and can be locked in using the lock-in table 1104.

As today's date gets closer to the date that any given broadcast is to occur, the scheduling staff at the station gradually comes to know precisely what programs will be broadcast and when. That staff may then use the routine 2104 to create entries in the lock-in table 1104 which locks in programming that is actually going to be broadcast and causes these locked-in programming designations to be substituted for the default designations in the view of the user 1130 through the frame 834 in the window 826 on the client work-station 810 (Fig. 9). Next, the routine 2106 permits break times to be defined. These break times are entered at first simply as full program break times which are not assigned

to specific times during the program but that are clustered all together at the beginning of the program to indicate the total amount of time that has been allocated for advertising.

Without any further effort by the user, the media advertising marketing system 800 (routine 2108) auto-creates one model avail, complete with demographic ratings data (if available) and with a price that can be adjusted by the seller, for each such program that is locked in. It is also possible to have the system create such avails for the default programs, if desired, so that all time slots are always on sale.

In routine 2110, the media advertising marketing system 800 takes advantage of the steps performed in Figs. 23 and 24, by the programs 2300 and 2400 that preprocess ratings data (Fig. 23) and integrate ratings data into the defaults and lock-ins (Fig. 24) by linking up, wherever possible, each lock-in and each default time position with previously-measured ratings data indicating the potential marketability of that time position in the schedule. A seller may assign a projected rating to a show by using (for example) A.C. Nielsen data taken from various books and by performing calculations upon this data. The system performs such computations and thereby replicates the current business process of negotiating based on these projections. At the same time, the routine 2112 permits the station's agent to add explanations of any differences between the past performance and the predicted ratings performance of the show at the present time by adding a comment or explanation to accompany the ratings data that is locked in. This information is visible, at the option of the user, from the user view 1130 shown in Fig. 11.

With reference now to Fig. 22, the routine 2200 is set forth in block diagram form. It assists either a seller or a buyer user to create campaigns and projects, to create carts under those projects, and then to populate those carts with avails. Using a routine 2201, the user (through user participation 2204) defines campaigns and projects (see Fig. 13) and defines for each project the flight dates, demographics, budgets, etc. (see Fig. 14) that are to be associated with each project and with the carts within each project. A campaign, for example, might be the sale of a diet soft drink during a particular time period, such as the NBA playoffs, directed towards men, as illustrated by the example in Fig. 14.

Having defined the campaign of the project, and having decided upon the creation of a cart, the user next calls upon the step 2206 which searches generally for avails that match these user requirements. The search process is interactive, with the user participating actively by viewing the avails produced and by having the right to reject avails, to add

avails, or even to return to the routine 2201 and to change some of the project parameters and to repeat the search as many times as is necessary to come up with a cart full of the desired avails.

The user also specifies, at an early point in this process, what ratings book the user wishes to use in terms of assigning ratings values to the avails at step 2202. These ratings are preprocessed, as described in this application, and are then passed to step 2208 where they are integrated into the avails data so that the cart discloses not just the avails time and scheduling but also the ratings data that this particular user believes are applicable to assist one in evaluating the sales value of the avails. The ratings data can also be made part of the search criteria used by the step 2206.

The user is then presented, at step 2210, with a spreadsheet-like view of the avails together with both the project requirements information and also the readings data; and then at step 2212, the user is permitted to modify this data (user participation 2216). This may result in a further search at step 2206 and the further integration of ratings data at step 2208, and these steps may be repeated as often as needed until the user is satisfied with the type of avails selected. Finally, the cart may be delivered from buyer to seller or from seller to buyer, along with an offering price; or the user may pass the cart to colleagues for further examination and review, at step 2214.

The system is designed to perform either "strict" searches, in which only those avails matching the user-specified parameters are returned, or "lenient" searches, which return to the user avails within specified tolerances. The tolerance levels are changeable. With respect to the carts, during a strict search, only those avails which fall within the designated search criteria fall within the cart; and during a lenient search, any avail may be added to a cart. A special check routine (another "system doctor" having the same name as that shown in Fig. 30 but associated with the user modification step 2212) can then identify the status of each avail vis-a-vis the parameters, and this routine can warn the user about the presence within a cart of avails that do not match the parameters in some way.

Searches can also be generated that specify what percentage of avails, for example, should fall into different time segments of the day. In this connection, the buyers and sellers may provide their own personal definitions of "prime time" and other dayparts for use in such searches. For example, a buyer may specify that 20% of the avails should fall into the morning, 50% should fall into the evening, and 30% should fall into prime time.

An important aspect of the present invention is its ability to adjust and integrate ratings data into the avails destined for inclusion in carts and into the defaults and lock-ins of the displayed station program information. This process is illustrated in block diagram form in Figs. 23 and 24.

The ratings data comes out in the form of ratings books which contain huge amounts of raw data. The same information can be bought or obtained in machine readable form from various companies that provide television ratings services. The present invention preprocesses this ratings data before attempting to integrate it into the media advertising marketing system 800 database.

A typical buyer may want to take the HUT from one book, the SHARE from another book, and any other values from a combination of books to calculate a projection. Sellers go through the same process when forecasting so that the seller can price its inventory appropriately.

In Fig. 23, the purchased ratings data 2302 is subjected to two different processing paths. At step 2304, the huge number of ratings for each demographic for each program are carefully analyzed, and the top (or best) 500 records are selected for each demographic. They are then ranked from 1 to 500. Then each selected record is re-ranked (step 2306) for the opposite demographic, also from 1 to 500. In this manner, the volume of ratings data is reduced, with only the most relevant ones being retained -- those most likely to indicate shows that would be of interest to purchasers.

As a separate operation, means and averages are computed over full-month intervals at step 2308 for each station; for each DMA (group of stations in a central city); for each daypart (range of hours during the day); and for each different type of programming. Then for each program (step 2310), data records are created which indicate program identity, the time slot of the program, how long the program has been assigned to that time slot, how long the program has been on the air, and whether the program is a network, cable, or independently-produced program.

This data is then stored, with the data for each program and avail linked to its demographic records and with the mean and average data being arranged so that it may be called up to assist buyers and sellers in selecting the type of avails and programming they might like to have both when browsing through programming data (Figs. 10 and 11) and when assembling or examining carts or contracts containing avails.

With reference to Fig. 24, a primary key identifying a given program in the default and lock-ins enables them to be matched to the same primary key found within the ratings data (step 2402). This could be a word within the name of a program that distinguishes it from other programs and that enables it to be matched up. The time and date stamp also assists with this match-up process. Accordingly, the program plus its ratings are combined such that they both may be viewed as shown in Figs. 11 and 12. While not shown in Fig. 24, the same technique associates the ratings data with avails data destined for carts in step 2208 in Fig. 22.

The negotiations routines 2500 that guide users through negotiations are shown in block diagram form in Fig. 25. First, in step 2502, since a buyer's cart of avails may contain avails from a number of different broadcast stations that will have to be covered by separate contracts, one for each station, the media advertising marketing system 800 automatically changes the data structure in the project table so that carts are replaced by umbrellas which contain individual contracts (replacing the carts) for each separate contracting broadcast station, and the avails are split up among the contracts in accordance with which stations they relate to. This is shown in Fig. 13. In that figure, the project A 1307 contains an avails cart A 1308 containing avails, which in the case of a buyer might be avails from a number of different broadcast stations. Contrast that with the project A 1325, where an umbrella 1328 contains two contracts 1330 and 1332 each of which contains avails for only one broadcast station. The umbrella 1328 and the contracts 1330 and 1332 thus replace the avails cart 1308 in the data structure.

Having thus created a contract, the programming in step 2504 permits the user to examine and change the parameters of the offer in the contract (such as the price) and also, as shown in Fig. 25, the programming in step 2504 maintains a complete history of all the changes that have been made to such a contractual offer over time by keeping copies of earlier versions and by placing into each old version a pointer to the new version. In assisting the user to perform such modifications, the program 2504 within the negotiation program 2500 calls upon the steps 2206, 2208, 2210, 2212, and 2214 that are shown and discussed in connection with Fig. 22, described above.

At step 2510, the contract offer is delivered to the other party. The other party may reject the offer at step 2512, at which point negotiations cease. This might be the case if, for example, the "avails" have already been sold to other parties, or if the requested price

is way out of line. The other party may send back a counter-offer (step 2518), which the offering party can accept (step 2514), reject, or revise (user input 2508 and step 2504). The other party may accept the offer in step 2514. If either party accepts, the other party must confirm the acceptance at step 2516. Then the offer is converted into a broadcast order at step 2520, and the avails become broadcast orders. After the airing, these orders are sent to accounting (step 2526) so that the purchaser may be billed. Eventually, the orders become "aired" broadcast orders at 2524. Of course, there may come the possibility that even after offer and acceptance and confirmation, the broadcast order may need to be corrected for various reasons, at step 2522. In that case, the system, at 2520, permits the broadcast order to be edited, again using the steps indicated in Fig. 22 (see the discussion of step 2504 above); and once again, an audit trail is maintained of all the changes so that the history of the negotiations and of the changes may be reviewed at a later time. For example, a three-month contract may run through the first month, after which either party may reopen the negotiations and modify the contract for the remaining two months.

Fig. 26 illustrates the process whereby a broadcast station places promotions for its own shows and possibly for not-for-profit activities. This is a simplification of the process of creating and negotiating carts of avails.

The routines 2700 begin at step 2702 where a staff member at the television station creates a cart, typically using a show and its ratings as a model for the search. At step 2704, a search occurs, and a promotional schedule is built up. In this process, steps 2206, 2210, 2212 and 2214 in Fig. 22 (the creation and population of carts) are used just as they (and the additional step 2208) were used during negotiations and during the modification of broadcast orders discussed above. Once the schedule has been developed, at step 2706, the promotional schedule is turned directly over to traffic personnel who convert these into the equivalent of broadcast orders for inclusion in the final schedule.

As the time gets close to the broadcast date, and after all the schedules have been locked in and all the "avails" sold, it is necessary to perform error checking, correct any errors discovered, and then generate the station log, which actually governs the precise time the various advertisements are broadcast. The routines 2700, shown in Fig. 27 in block diagram form, perform these tasks.

During a first pass through the data, which typically might take place several days before the broadcast date, the system doctor program 3000 (Fig. 30) is used to identify

gaps, overlaps, duplicates and other irregularities in the data. This is carried out in step 2702. Next, in step 2704, the sales staff is notified of any oversells, and staff members seek promotionals or other alternatives to fill in gaps that may be found in the breaks, or the breaks may be shortened. Scheduling staff members are directed to complete any missing lock-ins.

Perhaps the day before the broadcast, the final manipulation of the data takes place. At step 2706, a program guides a human through the process of "placing" the ads and promotionals within the pods, re-arranging them from a suggested order that is developed by the media advertising marketing system 800. For example, it would not be proper to have two commercials for the same kind of merchandise from two different buyers shown one after another. Such commercials should be placed into different pods. A buyer may enter an SIC or NAICS code (U.S. Census Bureau) into a broadcast order or traffic instruction, and then the system can place commercials into the schedule assuring that two competitors are not back to back. Many other similar problems can arise that may require human adjustments. Finally, at step 2708, the remaining defaults (if any) and lock-ins overlaid with the broadcast orders and promotionals are combined into a single station log, which is generated in any desired format required by other computers at the broadcast station. The station log appears at 2710. If any last minute errors are found or changes are required, a user may correct this log at 2712, and an audit trail of the corrected log is maintained at 2710, such that the histories of the changes can be reviewed later. When such corrections occur, at step 2714 the sales people are notified of any corrections, since these may require further negotiations with the buyers and possibly "make good" negotiations, which will be described below.

The log is then transferred, either in machine readable form or by reentry, to the equipment that actually controls the broadcast station on the day of the broadcast, automatically switching the advertisements on and off at the proper times to complete the necessary transmissions. Ideally, with the traffic downloaded to computers in MPEG-2 format (or some other advanced format that may be adopted for HDTV and the like), the entire process of setting up the station to broadcast an advertisement is performed automatically and entirely by computers without the need for any manual cassettes and the like, at considerable savings in time and labor for the stations and everyone involved.

The accounting programs 2800 appear in Fig. 28. If the station already has an accounting system, step 2806 can export records of the broadcast orders in a form suitable for incorporation into the other accounting system. At step 2808, prior to export, these records may be organized to simply provide a total bill for each customer, or they may be organized by contract so as to provide a total for each contract of avails that is billable to a given customer. In stations that may not have such sophisticated accounting systems, the media advertising marketing system 800 can be asked to generate invoices at step 2802; and when payments are received, staff members may check off the payments received at step 2804 so that the system serves both as a billing system and also as a maintainer of accounts receivable records.

On the day following a broadcast, television stations typically receive SIGMA or CMR data developed by outside contractors which indicate which ads truly did run at their assigned times. By way of brief explanation, the advertising copy contains a "marker" in the form of an ISCII number that is concealed within the front or back porch of the vertical timing interval. The companies that generate SIGMA or CMR ratings have equipment which monitors the broadcasts of the various TV stations, which extracts these special numbers from the broadcast signals, and which records the numbers and the times at which they are broadcast, as well as other information about the quality of the advertisements. This data indicates whether the ad actually aired, whether there was any time discrepancy, and if it aired, whether it was truncated.

The discrepancy reporting program 2900 begins (in Fig. 29) at step 2902 by extracting from the station log (2700 in Fig. 27) the time and the ISCII number of each advertisement that should have been run. Next, at step 2904, this program scans the overnight data 2908 (provided by the outside contractor) looking for entries that have corresponding time stamps and ISCII numbers. Discrepancy data 2908 which reports discrepancies (whether or not the ad aired, and was there any defect) is also captured by in the scanning step 2904. Overnight ratings data at 2906 may also be included so that the actual ratings of any given show may be matched up with the corresponding advertisements in case the contract requires a particular ratings performance (a certain number of "points") as one of its conditions. At step 2910, if the log data could not be matched to the overnight data, then at step 2912 a discrepancy report is created for that particular advertisement indicating it probably was not broadcast. If log data is found, then a new record is created

in step 2914 indicating the ad actually did run, and what the actual ratings were and also noting any defects.

Finally, at step 2916, a record of any discrepancies found are stored in the selling station's lock-in table and can also optionally be associated with the broadcast orders in a particular contract. If there are no problems, then the discrepancy reporting process is done. If problems are encountered, then at step 2918, a full report is sent to the seller, and this may lead to a "make good" negotiation at step 2920 between the buyer and seller where the seller confesses the error and proposes substituting other avails on later dates or proposes giving the buyer credit towards future advertising purchases.

The processing of the overnight ratings data against the log results in a comparison of the number of ratings points required by a given contract to be achieved by a given advertisement to the number of ratings points actually measured by A. C. Nielsen or some other such organization during the same hour on the same station, or during the same "daypert," or whatever range of time is used in the system of ratings measurement. Under a given contract, the system is able to keep tract of any deficit in the number of ratings points actually achieved for a given collection of broadcast orders. These may also be summed up over multiple contracts between the same buyer and seller to give a total ratings point deficiency indication that can be the starting point for "make good" negotiations or the assignment of additional avails to make up any deficiency. And some contracts may cause the seller to be paid more for bonus ratings points.

It is to the benefit of both the seller and the buyer that the discrepancy reporting steps described above be carried out by an independent third party who, in practical effect, maintains a "make good" bank. The system is capable, following the making of any necessary adjustments due to any interference causing the specified ad not to be broadcast or to be truncated, or due to ratings under-performances, of having the buyer pay the seller by electronic funds transfer according to parameters specified in the contract.

The system doctor program 3000 is illustrated in Fig. 30. This is a multi-pass program that goes through and analyzes the consistency and integrity of the various tables shown in Figs. 11 and 12. At step 3002, the program makes a pass through each table, and it looks for gaps, overlaps, duplicates and other discrepancies that can be found simply by examining each table in isolation. The system doctor analyzes the avails table (step 3004), the breaks table (step 3006), the lock-ins table (step 3008), and the defaults table (step

3010). And finally, at step 3012, the system doctor combines all of the above tables into a composite schedule and looks for gaps, overlaps, and inconsistencies or other defects in the resulting unified system. And finally, the system doctor reports any errors it finds to the operator at step 3014.

With reference to FIG. 31, a series of three programs are illustrated which enable the media advertising marketing system 800 to generate its own demographically organized ratings data which may be fed into the programs that preprocess the ratings data (Fig. 23) and ultimately joined with the lock-ins and avails (Figs. 12 and 15) to facilitate the search for avails. These are the ratings and opinion gathering programs 3100.

Initially, at step 3102, a statistically significant sampling of individuals must be randomly selected from the total population of television viewers in a region or area. It is important that the selection process be as truly random as possible. Ideally, around 2000 individuals are selected to give a high degree of reliability to the data gathered, but lower numbers may be used with some decrease in the accuracy of the resulting data. It is very important that efforts be made to get as high a response rate as is possible. All of this is well-known in the fields of statistics and television viewer surveying.

At step 3104, the media advertising marketing system 800 can be used to interview each individual, gathering demographic information (sex, age, etc.) and possibly other information (party affiliation, interest in athletics, music, food, etc.). This information is then stored within the system.

Each evening, the individuals may or may not view television; if they do view television, they will select programs to view. (Step 3106)

After viewing, and at their own convenience, the individuals each log onto the media advertising marketing system 800 (Step 3108). The system displays to them the evening's schedule of "lock-ins" or shows broadcast (step 3110), and the individuals click upon the screen to indicate very quickly and simply which shows they actually viewed (step 3112). Next, the system displays a list of the advertisements that were aired during the shows viewed by that individual (step 2114), this list being derived from the sold avails associated with the lock-ins corresponding to the shows actually viewed. The individual may then select the advertisements which he or she actually remembers viewing, as a test of information retention (step 3116). The system may be further programmed to ask

additional questions and conduct additional surveys, for example, to find out what the individuals actually recalled from some of the advertisements (step 3116).

The media advertising marketing system 800 next combines the individual program ratings data gathered from each individual at step 3112 with the individual demographics data gathered initially from the individuals at step 3104 to give a demographically-organized ratings database at step 3120. This data is aggregated (averaged, etc.) at step 3122 to produce a ratings database 2302 which may be sold or fed back into the system in Fig. 23. Ultimately, this data may be merged into lock-ins and avails and searched for by means of the cart avail search facility described above (see Fig. 22 and the accompanying text).

Contents of the Microfiche Appendix

The microfiche appendix contains listings of the 308 Cold Fusion Markup Language source files that make up this product. The files are listed on sequentially numbered pages in alphabetic order and the lines in each file are sequentially numbered.

The main file where things start is secure.cfml, logging into main.cfml, which is a frame source for topx.cfml, sidebarx.cfml, logo.cfml and mainx.cfml.

Reference: "Mastering ColdFusion 4", by Arman Danesh and Kristin Aileen Mutlagh, Copyright 1999, SYBEX Inc. (Library of Congress Card Number: 99-61819).

While particular embodiments of the present invention have been described, it is to be understood that numerous modifications and changes will occur to those who are skilled in the art. It is therefore intended by the claims appended to and forming a part of this specification to cover all such modifications and variations as fall within the true spirit and scope of the present invention.

CLAIMS

What is claimed as new and desired to be secured by letters patent of the United States is:

1. A method for buying and selling media advertising opportunities over a distributed communication network, comprising the steps of:

providing a server on the network, the server including a database containing information pertaining to available advertising opportunities in conjunction with specific media content provided by media content providers for the purpose of facilitating the marketing of the advertising opportunities from sellers to potential buyers of the opportunities;

providing sellers of the advertising opportunities access to the database over the network, whereby the sellers may enter the information;

providing the sellers and buyers with access to the database over the network, whereby the sellers or buyers may enter desired search criteria into a search engine and receive search results indicating particular advertising opportunities meeting the search criteria;

receiving offers on advertising opportunities selected by the sellers or buyers from the search, and communicating the offers between the sellers and buyers of the advertising opportunities who may then receive the offers, negotiate, accept the offers, and enter contracts into the server for communication between the sellers and buyers over the network.

2. A method in accordance with claim 1, wherein the available advertising opportunities, from the seller's perspective, are finite in number, and from the buyer's perspective, are unlimited, such that the finite number of opportunities may be over sold.

3. A method in accordance with claim 2, including the step of generating an inventory report that inventories the sold advertising opportunities and that reports oversells.

4. The method of claim 1, wherein the advertising opportunities comprise advertising time and/or space associated with television content.

5. The method of claim 2, wherein the information includes program times, days of week, category according to defined time segments, and demographic viewer information.

6. The method of claim 1, wherein said advertising opportunities comprise advertising space associated with one or more of the following: television, radio, Internet (or similar network), billboard and print.

7. The method of claim 1, wherein the server includes a make-good bank that accounts for credits owed to specific buyers as a result of underperformance under contracts.

8. The method of claim 7, further comprising the step of retrieving information on fulfilled, under-performing advertising opportunities, and crediting the buyer's make-good account for an under-performing advertising opportunity.

9. The method of claim 1, wherein the server includes a financial interface for interacting with accounting systems of the buyers and sellers over the network to settle contract payments after adjustments for under-performance.

10. The method of claim 1, further including the steps of receiving from buyers advertising content in digital form, and transmitting to sellers the advertising content received from buyers.

11. The method of claim 1, further including the step of allowing sellers or buyers to search advertising opportunities by media content provider, geographic market or demographic profile.

12. A system for buying and selling media advertising opportunities over a distributed communication network, comprising:

a server coupled to the network, the server including a database containing information pertaining to available advertising opportunities in conjunction with specific media content provided by media content providers;

advertising buyer stations coupled to the network, providing buyers of the advertising opportunities access to the database over the network, whereby the buyers may enter desired search criteria into a search engine and receive search results indicating particular advertising opportunities meeting the search criteria, the server receiving offers on advertising opportunities selected by buyers from the search results, and communicating the offers to sellers of the advertising opportunities; and

advertising seller stations coupled to the network, providing sellers of the advertising opportunities access to the database over the network, whereby the sellers may enter the information, receive offers entered by the buyers, negotiate, accept the offers, and enter contracts into the server for communication to the buyers over the network.

13. The system of claim 12, wherein the advertising opportunities comprise advertising time slots associated with television content.

14. The system of claim 12, wherein the information includes program times, days of week, category according to defined time segments, and demographic viewer information.

15. The system of claim 12, wherein the advertising opportunities comprise advertising time slots associated with radio content.

16. The system of claim 12, wherein the advertising opportunities comprise advertising time and/or space associated with Internet (or similar network) content sites.

17. The system of claim 12, wherein the advertising opportunities comprise advertising space associated with print.

18. The system of claim 12, wherein the server includes a make-good bank that accounts for credits owed to specific buyers as a result of under-performance under contracts.

19. The system of claim 12, wherein the server includes a financial interface for interacting with accounting systems of the buyers and sellers over the network to settle' contract payments after adjustments for under-performance.

20. The system of claim 12, further including means for receiving from buyers advertising content in digital form, and transmitting to sellers advertising content received from buyers.

21. The system claim 12, further including means for allowing buyers to search the availability of advertising opportunities by media content provider, geographic market, and demographic profile.

22. A method for buying and selling media advertising opportunities over a distributed communication network, comprising the steps of:

providing a server on the network, the server including a database containing information pertaining to available advertising opportunities in conjunction with specific media content provided by media content providers;

providing buyers of the advertising opportunities access to the database over the network, whereby the buyers may view particular advertising opportunities for sale by sellers;

receiving offers on advertising opportunities selected by buyers, and communicating the offers to sellers of the advertising opportunities; and

providing sellers of the advertising opportunities access to the database over the network, whereby the sellers may enter the information, receive offers entered by the buyers, negotiate,

accept the offers, and enter contracts into the server for communication to the buyers over the network.

23. A method for delivering advertising content to a media seller over a distributed communication network, comprising the steps of:

providing a central server having a storage medium, the server being connected to the network and said central server containing data indicative of the results of negotiations between buyers and sellers in the form of inventory owned by buyers of advertising opportunities;

enabling a plurality of independent buyers of advertising opportunities sold by advertising sellers, to input to the storage medium advertising content relating to that buyer's inventory; and

enabling individual advertising sellers to retrieve from the storage medium stored advertising content for display by the sellers in fulfilling the advertising opportunities.

24. The method of claim 23, wherein the advertising content comprises television advertising content, radio advertising content, print advertising content, and Internet (or similar network) advertising content.

25. A method for purchasing advertising opportunities via a distributed communication network, comprising the steps of:

creating a primary search profile including at least one of a plurality of search criteria;

transmitting an instruction to apply the search profile to a database having available advertising opportunities;

receiving a list of a plurality of available advertising opportunities meeting the search profile, and storing the list as a shopping list; and

transmitting an instruction offering to buy at least one of the available advertising opportunities in the shopping list.

26. The method of claim 25, wherein the step of creating a primary search profile includes specifying flight dates and market.

27. The method of claim 26, wherein the step of creating a primary search profile includes specifying a type of media, a daypart, a rating, a show type or demographics.

28. The method of claim 26, wherein the step of creating a primary search profile includes the step of excluding a particular show.

29. The method of claim 26, wherein the step of creating a primary search profile includes the step of specifying percentages of the opportunities that are required to have certain properties.

30. The method of claim 25, further comprising the step of specifying at least one additional search criteria, and searching the shopping list for available advertising opportunities meeting the additional search criteria.

31. The method of claim 25, further comprising the step of specifying in the buy offer instruction a proposed purchase price.

32. The method of claim 25, further comprising the step of specifying in the buy offer instruction that the purchase should be credited against a make-good credit.

33. The method of claim 25, further comprising the step of receiving an acceptance of the offer to buy.

34. The method of claim 33, further comprising the step of, after receiving the acceptance, transmitting to the database advertising content to be used in the advertising opportunities.

35. The method of claim 33, further comprising the step of, after receiving the acceptance, and following the flight and the post flight reconciliation, transmitting an electronic payment for the accepted offer to buy.

36. The method of claim 25, further comprising the step of transmitting an instruction to modify the offer to buy.

37. A method for selling advertising opportunities via a distributed communication network, comprising the steps of:

specifying information about a plurality of available advertising opportunities;

transmitting an instruction to store the specified information in a database having available advertising opportunities;

receiving a offer for at least one of a plurality of available advertising opportunities;

reviewing the offer; and

transmitting an acceptance of the offer if specified criteria are met, otherwise transmitting a rejection of the offer.

38. The method of claim 37, wherein the step of specifying information about a plurality of available advertising opportunities includes the steps of specifying a default schedule, spawning at least one child lock-in schedule from the default schedule, and attaching an available advertising opportunity to the lock-in schedule.

39. The method of claim 37, further comprising the steps of bundling a plurality of available advertising opportunities into a special bundle inventory, and receiving an offer for the special bundle inventory.

40. A computerized system for assisting buyers and sellers to negotiate the sale of available advertising opportunities via a distributed communication network, comprising;

primary search profile data including at least one of a plurality of search criteria;

a search instruction, responsive to a user command, indicating that the primary search profile is to be applied to a database having a plurality of available advertising opportunities;

a list of a plurality of available advertising opportunities meeting the search profile, received in response to the instruction, stored as a shopping list; and

a negotiation instruction, responsive to a user command, to make an offer for at least one of the available advertising opportunities in the shopping list.

41. The system of claim 40, wherein the primary search profile includes flight date and markets.

42. The system of claim 41, further comprising a second search instruction having additional search criteria, to be applied to the shopping list for available advertising opportunities meeting the additional search criteria.

43. The system of claim 41, further comprising a proposed purchase price in the negotiation instruction.

44. The system of claim 41, further comprising an instruction to modify the offer.

45. The system of claim 41, further comprising stored advertising content to be transmitted responsive to an acceptance of the offer.

46. The system of claim 41, further comprising an instruction to transmit an electronic payment, after the flight and the post flight reconciliation, responsive to an acceptance of the offer.

47. An electronic data processing system for the marketing of avails. the system comprising:

a database containing default information relating to media communication opportunities; a program mechanism that permits the default information to be supplemented, over time, with non-default media communication opportunities; and

a display program mechanism that draws out of the database the non-default opportunities when present, and the default opportunities when the non-default

opportunities are not present, combining them into a continuous display of media communication opportunities that can be viewed by users of the system, and presenting at least some of the opportunities to users as avails that may be examined, collected, negotiated for, and purchased.

48. A system in accordance with claim 47, wherein release dates may be applied to any lock-in such that default items continue to be displayed until the release date, after which the lock-in items are displayed.

49. A system in accordance with claim 47, wherein the database and program mechanisms are centrally established on an Internet (or similar network) or intranet such that users, both buyers and sellers, may access the system from conventional Internet (or similar network) access machines.

50. A system in accordance with claim 47, wherein the media communication opportunities include television and/or radio programming assigned to particular times and dates and are intended to include advertising assigned to breaks.

51. A system in accordance with claim 50, wherein the non-default media communication opportunities include locked-in television and/or radio programming indicating which definite shows or the like are definitely scheduled to be broadcast at what times.

52. A system in accordance with claim 51, wherein the default media communication opportunities include estimated indications of what television and/or radio shows or what types of television and/or radio shows or the like are most likely to be broadcast at certain times and on certain dates, the estimated indications covering short ranges of dates and being replicated in the display to cover much longer ranges of dates, to fill out the schedule for avail marketing purposes well before the final schedule is locked in.

52. A system in accordance with claim 50, wherein the database can accept, for at least some programming, definitions of break times assigned to programs.

53. A system in accordance with claim 52, wherein at least some of the break times are, over time, broken up into individual break times each assigned to a specific position within a program and each having a definite time duration to contain a pod of avails.

54. A system in accordance with claim 53, wherein at least some of the avails are, over time, assigned in pods to specific break times assigned to specific broadcast times.

55. A system in accordance with claim 54, wherein the system includes a program mechanism that generates a report containing a detailed log of when specific advertisements will run within specific breaks within specific locked-in programs.

56. A system in accordance with claim 54, wherein the system includes a program mechanism that identifies gaps, overlaps, duplicates, and other like discrepancies.

57. A system in accordance with claim 50, the database of which includes ratings data which may be linked to related programming to help determine the value of avails associated with the programs and which may be viewed through use of the display program mechanism.

58. A system in accordance with claim 57, to which is added a search program mechanism that can search for avails associated with specific information including the ratings data.

59. A system in accordance with claim 58, which facilitates negotiations between buyers and sellers of avails by transferring sets of avails back and forth between buyers and sellers, maintaining an audit trail of all such offers, and providing for counteroffers, rejections and acceptance, which acceptance transforms a set of avails into broadcast orders.

60. A system in accordance with claim 59, which further may accept into its database performance data indicating which advertisements were actually broadcast and matching such data to broadcast orders to thereby enable the generation of exception reports that can lead to "make good" negotiations.

61. A system in accordance with claim 59, which further may accept into its database performance data indicating the rating performance of a time period containing an advertisement and matching such data to broadcast orders associated with contracts having contingent ratings performance criteria to thereby enable the generation of a post-flight reconciliation.

62. A system in accordance with claim 58, wherein the search mechanism's search may optionally be narrowed by reference to demographics, flight dates, dayparts, station and/or regional identification, and general subject matter, and wherein any specific search may be narrowed by any one or more of these.

63. A system in accordance with claim 62, which facilitates negotiations between buyers and sellers of avails by transferring sets of avails back and forth between buyers and sellers, maintaining an audit trail of all such offers, and providing for counteroffers, rejections and acceptance, which acceptance transforms a set of avails into broadcast orders.

64. A system in accordance with claim 63, which further may accept into its database performance data indicating which advertisements were actually broadcast and matching such data to broadcast orders to thereby enable the generation of exception reports that can lead to "make good" negotiations.

65. A system in accordance with claim 63 which further may accept into i& database performance data indicating the rating performance of a time period containing an advertisement and matching such data to broadcast orders associated with contracts having contingent ratings performance criteria to thereby enable the generation of a post-flight reconciliation.

66. A system in accordance with claim 62, wherein the database permits projects to be defined and associated with project parameters, and then permits interactive searching for carts of avails.

67. A system in accordance with claim 66, which facilitates negotiations between buyers and sellers of avails by transferring sets of avails back and forth between buyers and sellers, maintaining an audit trail of all such offers, and providing for counteroffers, rejections and acceptance, which acceptance transforms a, set of avails into broadcast orders.

68. A system in accordance with claim 67 which further may accept into its database performance data indicating which advertisements were actually broadcast and matching such data to broadcast orders to thereby enable the generation of exception reports that can lead to "make good" negotiations.

69. A system in accordance with claim 67, which further may accept into its database performance data indicating the rating performance of a time period containing an

advertisement and matching such data to broadcast orders associated with contracts having contingent ratings performance criteria to thereby enable the generation of a post-flight reconciliation.

70. A system in accordance with claim 66, which includes security provisions whereby sellers are not permitted to view each others' offerings but buyers may view the offerings of plural sellers.

71. A system in accordance with claim 70, which facilitates negotiations between buyers and sellers of avails by transferring sets of avails back and forth between buyers and sellers, maintaining an audit trail of all such offers, and providing for counteroffers, rejections and acceptance, which acceptance transforms a set of avails into broadcast orders.

72. A system in accordance with claim 71, which further may accept into its database performance data indicating which advertisements were actually broadcast and matching such data to broadcast orders to thereby enable the generation of exception report, that can lead to "make good" negotiations.

73. A system in accordance with claim 71, which further may accept into its database performance data indicating the rating performance of a time period containing an advertisement and matching such data to broadcast orders associated with contracts having contingent ratings performance criteria to thereby enable the generation of a post-flight reconciliation.

74. A system in accordance with claim 70, wherein in the system provides for a hierarchy of users each of whom controls the permissions of sub-users.

75. A system in accordance with claim 74, which facilitates negotiations between buyers and sellers of avails by transferring sets of avails back and forth between buyers and sellers, maintaining an audit trail of all such offers, and providing for counteroffers, rejections and acceptance, which acceptance transforms a set of avails into broadcast orders.

76. A system in accordance with claim 66, wherein a buyer may have a cart of avails broken up into individual contracts of avails each containing avails relating to a single selling entity on the system.

77. A system in accordance with claim 76, which facilitates negotiations between buyers and sellers of avails by transferring sets of avails back and forth between buyers and sellers,

maintaining an audit trail of all such offers, and providing for counteroffers, rejections and acceptance, which acceptance transforms a set of avails into broadcast orders.

78. A system in accordance with claim 77 which further may accept into its database performance data indicating which advertisements were actually broadcast and matching such data to broadcast orders to thereby enable the generation of exception reports that can lead to "make good" negotiations.

79. A system in accordance with claim 77 which further may accept into its database performance data indicating the rating performance of a time period containing an advertisement and matching such data to broadcast orders associated with contracts having contingent ratings performance criteria to thereby enable the generation of a post-flight reconciliation.

80. A computer-implemented method for marketing avails between buyers and sellers, comprising the steps of:

collecting into a searchable database the avails of a plurality of sellers, including information defining the nature and timing of a communication opportunity associated with each avail;

adding to the database ratings information including demographic information defining the nature and quantity of the audiences for similar communications opportunities in the past and establishing linkages between such data and the avails;

permitting users of the system to define search criteria optionally including the nature defining information and/or demographic information or both, and then executing, in a semi-automated fashion with user feedback, searches for sets of avails matching the user-designated criteria;

transferring such sets of avails between seller-users and buyer-users, together with price information, and subject to revisions between transfers, to establish a negotiation process; and

when negotiations result in an order, converting the final sets of avails into orders for advertising.

81. A method in accordance with claim 80, to which is added the steps of:

initially collecting into the system avails defined by a default schedule of communication opportunities; and

over time, replacing the default schedule with a non-default schedule.

82. A method in accordance with claim 81, to which is added the steps of:

over time, locking specific avails into specific positions within the schedule such that the final orders are specifically placed within the communication opportunities; and

generating from the database a log indicating the precise placement of advertisements within the domain of each communication opportunity.

83. A method in accordance with claim 82, to which is added the steps of:

following the execution of the communication event that gave rise to a communication opportunity and to one or more avails, adding to the database performance information indicating whether or not an order for advertising was actually fulfilled; and

generating exception reports that can lead to "make-good" negotiations between the parties to an order for advertising.

84. A method in accordance with claim 83, in which at least some of the communication opportunities are programs broadcast over television and/or radio and including advertisements

85. A method in accordance with claim 83, in which at least some of the communication opportunities are print containing advertisements, Internet (or similar network) sites containing advertisements, and outdoor and/or indoor advertising displays.

86. An Internet (or similar network) or intranet-based system for facilitating the marketing of avails, comprising:

one or more servers connected to an Internet (or similar network) or intranet and sharing a common database system;

data structures established and maintained by the servers within the common database including a user's table, a login table, tables of schedules and avails, seller's and buyer's project tables, and information tables concerning geographic and other seller information;

a program system established within the servers controlling the creation of schedules and avails, the searching for sets of avails, the negotiation of contracts governing sets of avails, accounting, and discrepancy reporting; and

web pages defined by the program and downloadable to user workstations to facilitate user program selection, user creation of the schedules and avails, user searching for set of avails, the negotiation of contract between users, and user access to reports.

87. An Internet (or similar network) or intranet-based system for facilitating the marketing of avails, comprising:

a plurality of servers connected to an Internet (or similar network) or intranet by a router and sharing a common database system;

a data dictionary shared commonly by all the servers to coordinate their activities so that any server may respond to any user request;

data structures established and maintained by the servers within the common database including a user's table, a login table, tables of schedules and avails, seller's and buyer's project tables, and information tables concerning geographic and other seller information;

user hierarchy information included within the data structures permitting some users to set limits on what other users may see and do; and

a program system established within the servers controlling the creation of schedules and avails, the searching for sets of avails, the negotiation of contracts governing sets of avails, accounting, and discrepancy reporting.

88. A system in accordance with claim 87, which includes programs that can break up the Internet (or similar network) displays of users into multiple frames one of

which frames is for program navigation and another of which frames can present the user with a view of the tables of schedules and avails in which "locked-in" entries are given priority, but "default" entries are supplied whenever "locked-in" entries are unavailable.

90. A system in accordance with claim 87, in which at least some of the schedules are radio and television program schedules and to the data structures of which is added ratings data linked to related programs in the schedules to facilitate searching for programs having particular demographics.

91. A system in accordance with claim 89, to which is added, following the performance of programs, data identifying advertisements and indicating how successfully and when they were

broadcast, the program system including programs that match such data to avails that have been sold and generate exception reports that can serve as the basis for "make-good" negotiations.

92. A system in accordance with claim 90, which includes programs that can break up the Internet (or similar network) displays of users into multiple frames one of which frames is for program navigation and another of which frames can present the user with a view of the tables of schedules and avails in which "locked-in" entries are given priority, but "default" entries are supplied whenever "locked-in" entries are unavailable.

93. A system in accordance with claim 92, in which break times and at least an exemplary avail are visibly associated with each locked-in program schedule entry, from the point of view of a buyer;

and in which lists of avails available and avails sold are available to a seller.

94. A system in accordance with claim 93, that can generate useful reports of avails and their characteristics and values for buyers and of avails and their status and value for sellers.

95. A system in accordance with claim 94, where the system includes:

programs that enable users to relate projects to parameters, including ratings demographics;

programs that facilitate searching for carts of avails matching project parameters; and programs that facilitate negotiations, the conversion of carts into contracts, and the negotiation and ratification of the contracts.

96. A system in accordance with claim 95, which, for sellers, is able to detect oversells and other discrepancies, and which can generate a log report.

97. An electronic data processing system for the marketing of avails, the system comprising:

a database containing media communication opportunities;

the database including ratings data which may be linked to related programming data to help determine the value of avails associated with the programming;

a display program mechanism that draws out of the database the opportunities forming them into a continuous display of media communication opportunities that can be viewed, along with the related ratings data, by users of the system;

a manual selection mechanism that permits a user to manually select avails associated with specific opportunities for inclusion in a set of avails; and

a program mechanism for facilitating negotiations by transferring such selected sets of avails back and forth between buyers and sellers, maintaining an audit trail, and transforming accepted offers of sets of avails into broadcast orders.

98. A system as in claim 97, which also includes an automatic selection mechanism that can search for avails associated with specific information, including the ratings data; and wherein the manual and automatic selection means can be used together to facilitate the semi-manual selection of sets of avails.

99. An electronic data processing system for the generation of rate cards and *the* marketing of avails, the system comprising:

a database containing information relating to media communication opportunities;

the media communication opportunities including television and/or radio programming assigned to particular times and dates and intended to include advertising assigned to breaks; the database including ratings data which may be linked to related programming data to help determine the value of avails associated with the programming;

a display program mechanism that draws out of the database the opportunities forming a continuous display of media communication opportunities that can be viewed, along with the related ratings data, by users of the system; and

a rate card generating program mechanism that can search through the opportunities and generate therefrom a schedule in the form of a rate card, including rate and schedule information, dynamically regenerating such a rate card each time one is requested so that the rate card is always current.

100. A system in accordance with claim 99, including programs that check the schedules for the current and subsequent weeks, looking for irregularities and special programming, and that draw these to the user's attention for manual resolution prior to generating a rate card.

101. An electronic data processing system for the marketing of avails, the system comprising:

a database containing information relating to media communication opportunities;

the media communication opportunities including television and/or radio programming assigned to particular times and dates and intended to -include advertising assigned to breaks;

a display program mechanism that draws out of the database the opportunities forming them into a continuous display of media communication opportunities that can be viewed, by users of the system;

a program for entering into the database the identity of advertisements and the times when they should run;

a program that generates a traffic report from the database indicating what advertisements are scheduled to be broadcast when; and

the database accepting performance data indicating which advertisements were actually broadcast and matching such data to the traffic report to thereby enable the generation of status reports indicating which advertisements failed to run.

102. An electronic data processing system for the marketing of avails, the system also being adapted to conduct user surveys to gather ratings data, comprising:

a database containing information relating to media communication opportunities;

the media communication opportunities including television and/or radio programming assigned to particular times and dates and intended to include advertising assigned to breaks;

a display program mechanism that draws out of the database a complete schedule of the programming that can be viewed by a given individual in a given city in a survey format such that the individual may select the programming he or she actually viewed, thereby resulting in the production of individual ratings data; and

a mechanism for aggregating such individual ratings data gathered from many" individuals into ratings data of a type suitable for association with future media communication opportunities.

103. A system in accordance with claim 102, to which is added:

demographic data relating to each of the many individuals stored within the system; and a routine that combines the individual demographic data with the individual ratings data prior to aggregation to thereby give rise to demographically categorizable ratings data.

104. A system in accordance with claim 103, to which is added:

a routine for collecting from the individuals advertisement recognition data relating to advertisements broadcast on the programming the individual viewed, by displaying to the individual lists of the advertisements extracted from an avails database within the system, whereby advertisement recognition data may be gathered.

105. A computer program product comprising a computer usable medium having computer program logic stored therein, the computer program logic comprising:

interacting means for causing a computer to interact with buyers and sellers over a distributed communication network to exchange advertising information with the buyers and sellers, process commands received from the buyers and sellers and form contracts between the buyers and sellers, the advertising information including: a) data describing available advertising opportunities from particular sellers, b) offers to buy and sell the available advertising opportunities, c) acceptances of the offers, and d) contracts, each of the contracts assigning at least one of the available advertising opportunities to a particular one of the buyers based on terms in an accepted offer; and

storing means for causing the computer to store and retrieve the advertising information in response to operation of the interacting means.

106. The computer program product according to claim 105, further comprising:

delivering means for causing the computer to deliver at least one advertisement to a media provider over the distributed communications network pursuant to at least some of the contracts.

107. The computer program product according to claim 105, wherein the offers include offers and counter offers.

108. The computer program product according to claim 105, wherein the computer comprises at least one server computer.

109. The computer program product according to claim 105, wherein the available advertising opportunities, from the seller's perspective, are finite in number, and from the buyer's perspective, are unlimited, such that the finite number of opportunities may be over sold.

110. The computer program product according to claim 109, further comprising:

generating means for causing the computer to generate an inventory report that inventories the contracted advertising opportunities and that reports oversells.

111. The computer program product according to claim 105, wherein the advertising opportunities comprise advertising time and/or space associated with television content.

112. The computer program product according to claim 111, wherein the data describing the available advertising opportunities comprises: program times, days of week, category according to defined time segments, and demographic viewer information.

113. The computer program product according to claim 105, wherein the advertising opportunities comprise advertising time and/or space associated with radio content.

114. The computer program product according to claim 105, wherein the advertising opportunities comprise advertising time and/or space associated with Internet (or similar network) content sites.

115. The computer program product according to claim 105, wherein the advertising opportunities comprise advertising space associated with print content.

116. The computer program product according to claim 105, wherein the advertising opportunities comprise advertising space associated with two or more of the following: television, radio, Internet (or similar network), and print.

117. The computer program product according to claim 105, wherein the advertising opportunities comprise advertising space associated with television and radio.

118. The computer program product according to claim 105, wherein the advertising opportunities comprise advertising space associated with television and billboard.

119. The computer program product according to claim 105, wherein the advertising opportunities comprise advertising space associated with television and print.

120. The computer program product according to claim 105, wherein the advertising opportunities comprise advertising space associated with radio and billboard.

121. The computer program product according to claim 105, wherein the advertising opportunities comprise advertising space associated with Internet (or similar network) and billboard.

122. The computer program product according to claim 105, wherein the advertising opportunities comprise advertising space associated with Internet (or similar network) and television.

123. The computer program product according to claim 105, wherein the advertising opportunities comprise advertising space associated with Internet (or similar network) and radio.

124. The computer program product according to claim 105, wherein the advertising opportunities comprise advertising space associated with print and billboard.

125. The computer program product according to claim 105, wherein the advertising opportunities comprise advertising space associated with Internet (or similar network) and print.

126. The computer program product according to claim 105, further comprising:

accounting means for causing the computer to account for credits owed to specific buyers as a result of underperformance of sellers under contracts.

127. The computer program product according to claim 126, wherein the accounting means further comprises:

means for causing the computer to retrieve stored information on fulfilled, under-performing advertising opportunities, and crediting the buyer's make-good account for an under-performing advertising opportunity.

128. The computer program product according to claim 105, further comprising:

financial interface means for causing the computer to interacting with accounting systems of the buyers and sellers over the network to settle contract payments.

129. The computer program product according to claim 105, further comprising:

receiving means for causing the computer to receive from a particular buyer advertising content in digital form;

associating means for causing the computer to associate the advertising content with at least one of the contracts; and

transmitting means for causing the computer to transmit to sellers the advertising content from buyers associated with the contract.

130. The computer program product according to claim 105, further comprising:

searching means for causing the computer to respond to search requests made via the interface means to search the advertising opportunities.

131. A method of providing media, comprising:

providing a media platform for delivering media, the media including internal slots filled with advertisements;

delivering the media;

wherein the slots have been filled with the advertisements based on operation of an advertising system which, over a distributed communications network, serves information representing available slots to buyers and communicates offers and acceptances between the buyers and sellers to form contracts to fill the slots.

132. The method according to claim 131, wherein the advertisements are transmitted to the media platform from the advertising system as digital data.

133. The method according to claim 131, wherein the slots include one or both of time and space within the media.

134. The method according to claim 131, wherein the information representing the available slots includes one or more of: program times, days of week, category according to defined time segments, and demographic viewer information.

135. The computer program product according to claim 131, wherein the information representing the available slots comprise advertising time and/or space associated with radio content.

136. The computer program product according to claim 131, wherein the advertising opportunities comprise advertising space associated with print content.

137. The method according to claim 131, wherein the delivering is broadcasting television signals including the advertisements.

138. The method according to claim 131, wherein the delivering is broadcasting radio signals including the advertisements.

139. The method according to claim 131, wherein the delivering is transmitting content including the advertisements over the Internet.

140. The method according to claim 131, wherein the delivering is printing and distributing hard copies of the media.

141. The computer program product according to claim 131, wherein the slots comprise advertising space associated with print and billboard.

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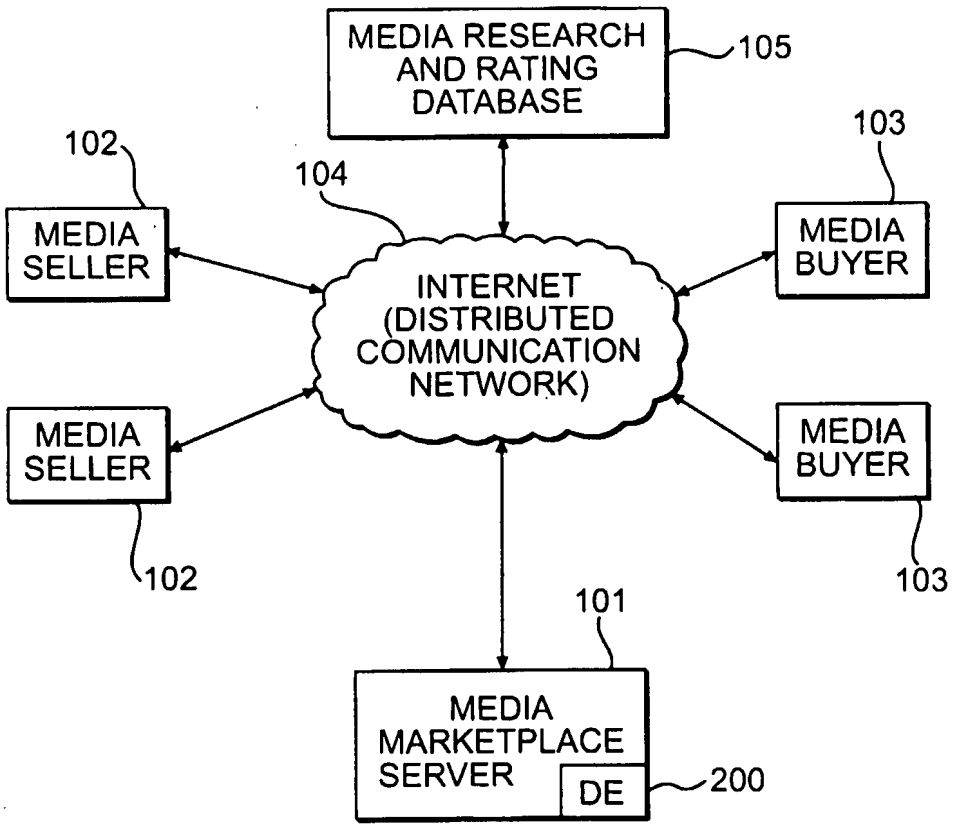
MEDIA RESEARCH AND RATING DATABASE
105
102
104
103
MEDIA SELLER
INTERNET (DISTRIBUTED COMMUNICATION NETWORK)
MEDIA BUYER
MEDIA SELLER
MEDIA BUYER
102
103
101
MEDIA MARKETPLACE SERVER
DE
200

FIG. 1

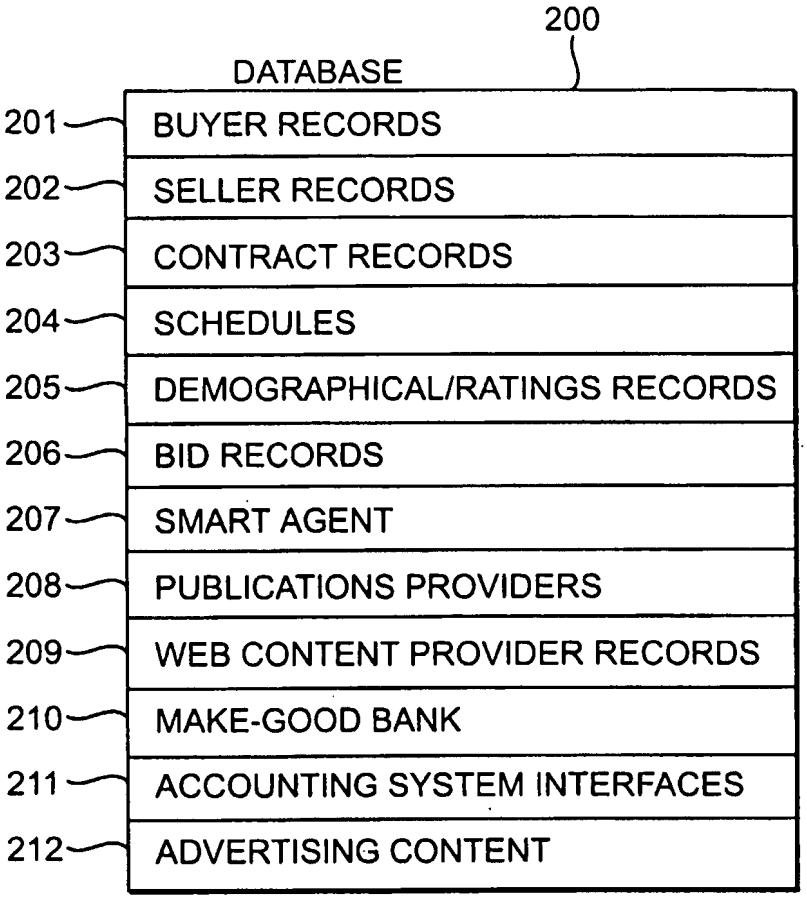
200
DATABASE
201
BUYER RECORDS
202
SELLER RECORDS
203
CONTRACT RECORDS
204
SCHEDULES
205
DEMOGRAPHICAL/RATINGS RECORDS
206
BID RECORDS
207
SMART AGENT
208
PUBLICATIONS PROVIDERS
209
WEB CONTENT PROVIDER RECORDS
210
MAKE-GOOD BANK
211
ACCOUNTING SYSTEM INTERFACES
212
ADVERTISING CONTENT

FIG. 2

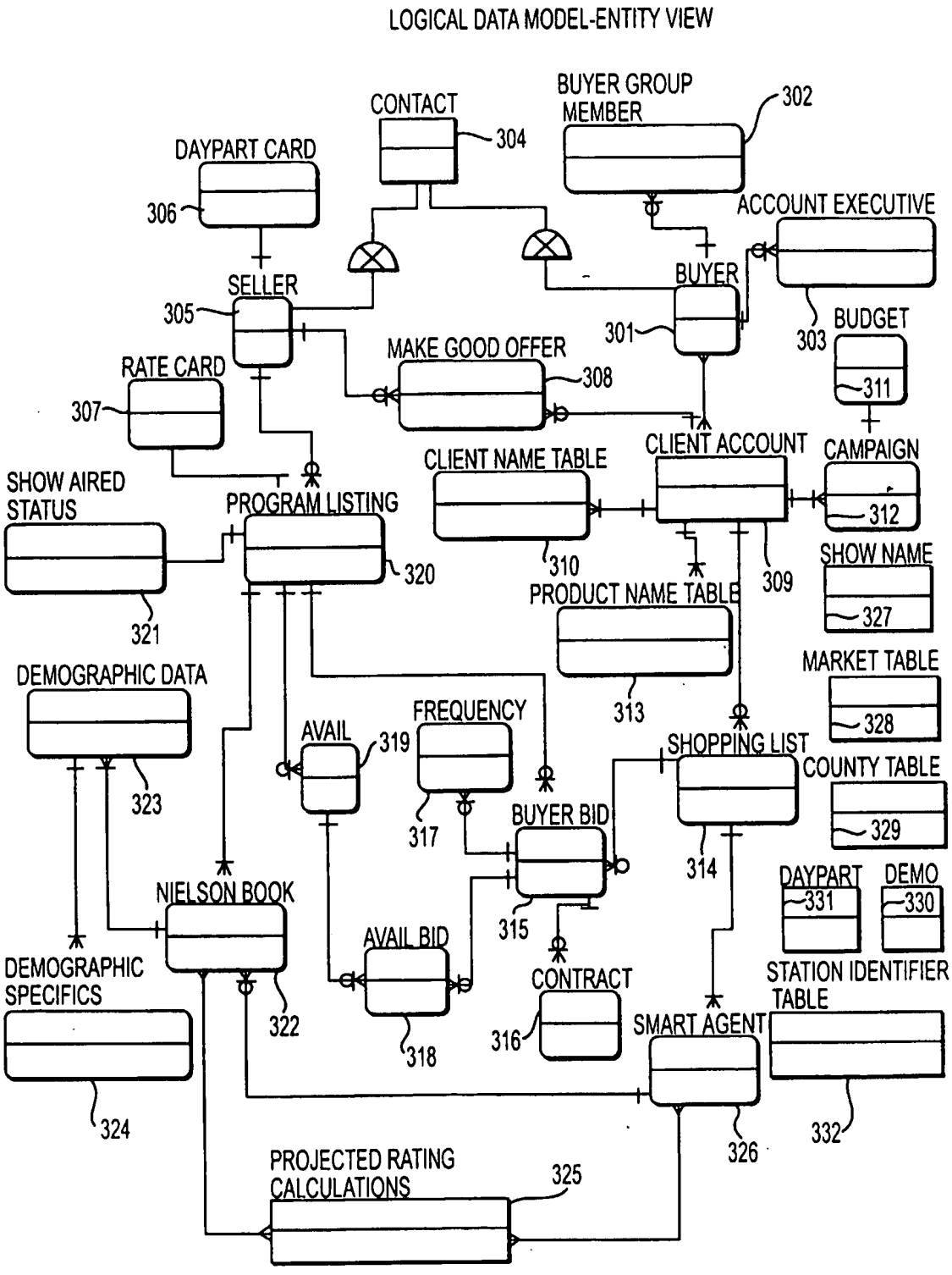
LOGICAL DATA MODEL-ENTITY VIEW
CONTACT
304
BUYER GROUP MEMBER
302
DAYPART CARD
306
ACCOUNT EXECUTIVE
SELLER
305
BUYER
301
BUDGET
303
311
MAKE GOOD OFFER
308
RATE CARD
307
CLIENT ACCOUNT
CAMPAIGN
312
CLIENT NAME TABLE
310
SHOW AIRED STATUS
PROGRAM LISTING
320
321
309
SHOW NAME
327
PRODUCT NAME TABLE
313
MARKET TABLE
328
DEMOGRAPHIC DATA
323
FREQUENCY
AVAIL
319
317
SHOPPING LIST
COUNTY TABLE
329
BUYER BID
314
DAYPART
331
DEMO
330
NIELSON BOOK
315
AVAIL BID
DEMOGRAPHIC SPECIFICS
CONTRACT
STATION IDENTIFIER TABLE
322
316
SMART AGENT
318
324
326
332
PROJECTED RATING CALCULATIONS
325

FIG. 3

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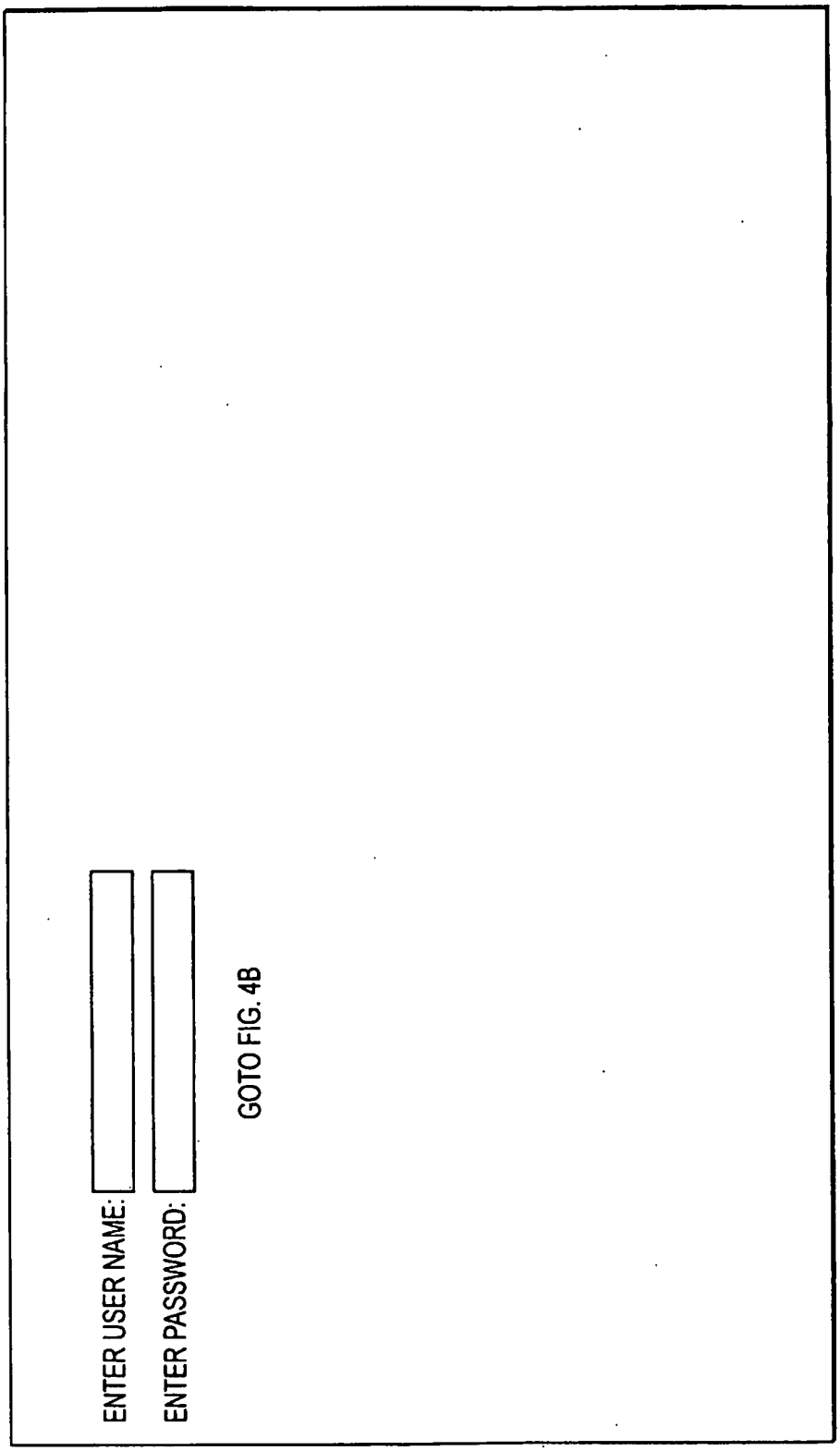

FIG. 4A

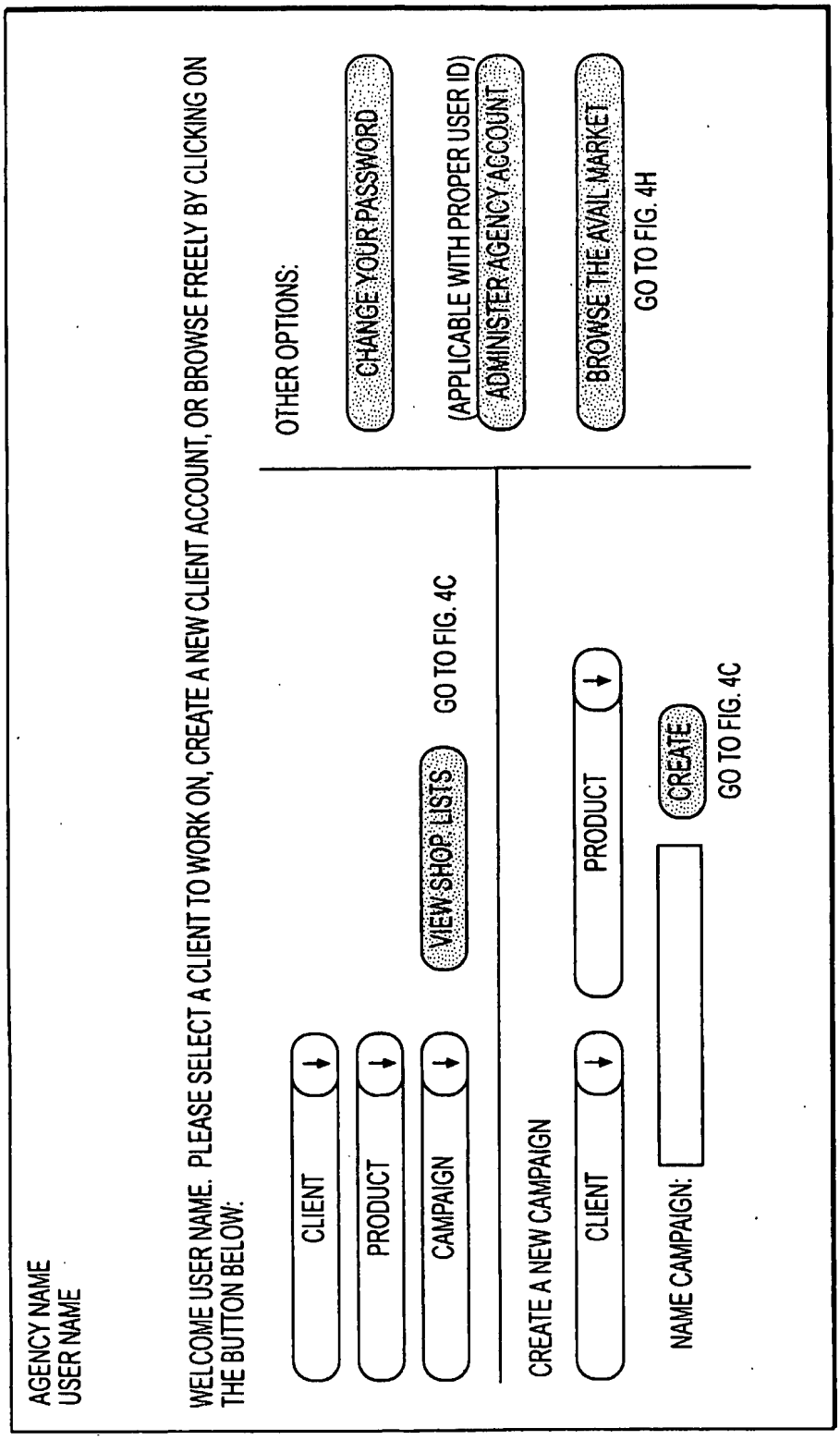
AGENCY NAME
USER NAME
WELCOME USER NAME. PLEASE SELECT A CLIENT TO WORK ON, CREATE A NEW CLIENT ACCOUNT, OR BROWSE FREELY BY CLICKING ON THE BUTTON BELOW:
CLIENT
PRODUCT
CAMPAIGN
VIEW SHOP LISTS
GO TO FIG. 4C
CREATE A NEW CAMPAIGN
CLIENT
PRODUCT
NAME CAMPAIGN:
CREATE
GO TO FIG. 4C
OTHER OPTIONS:
CHANGE YOUR PASSWORD
(APPLICABLE WITH PROPER USER ID)
ADMINISTER AGENCY ACCOUNT
BROWSE THE AVAIL MARKET
GO TO FIG. 4H

FIG. 4B

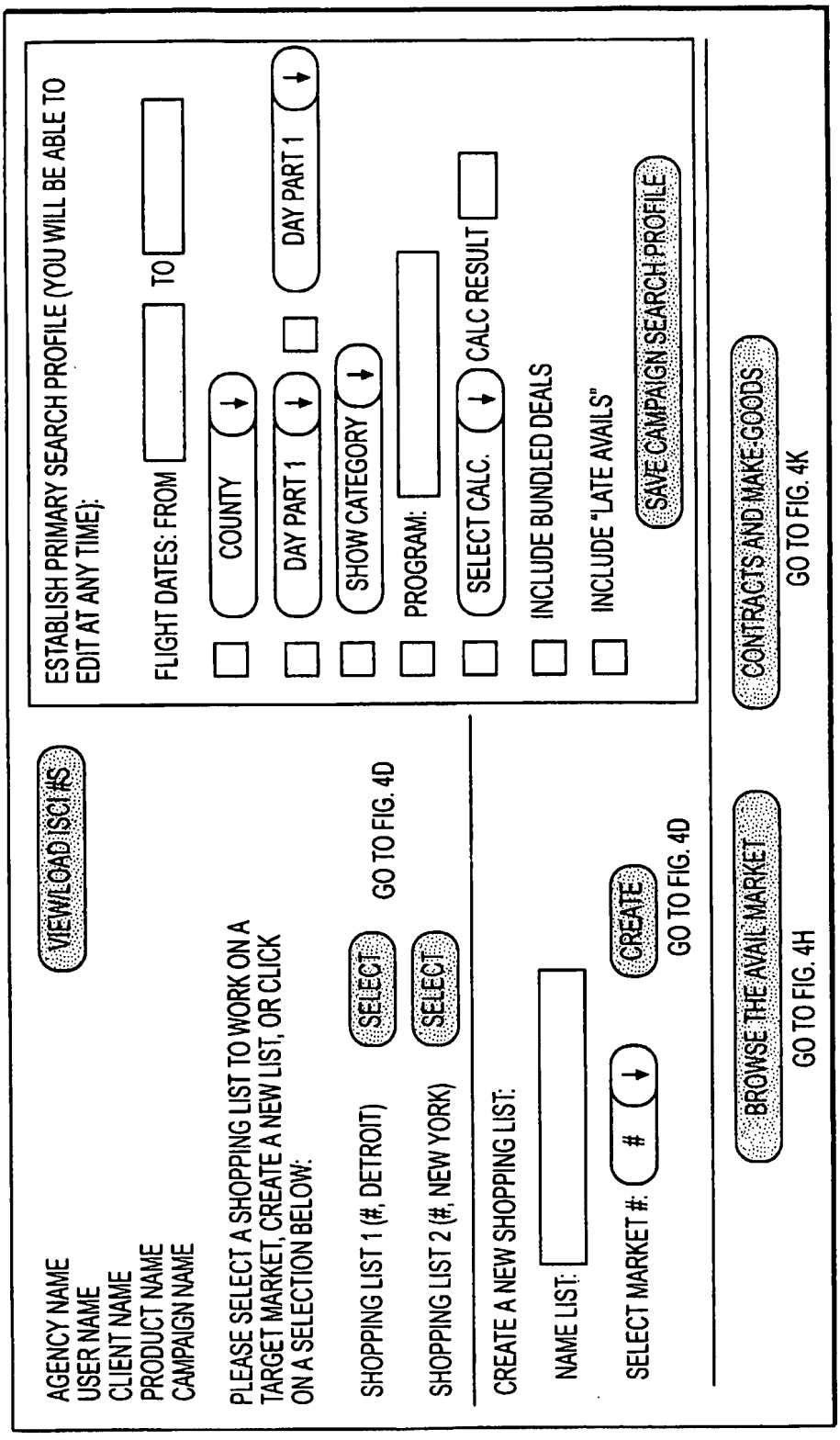
AGENCY NAME
USER NAME
CLIENT NAME
PRODUCT NAME
CAMPAIGN NAME
VIEW LOAD ISCI #S
PLEASE SELECT A SHOPPING LIST TO WORK ON A TARGET MARKET, CREATE A NEW LIST, OR CLICK ON A SELECTION BELOW:
SHOPPING LIST 1 (#, DETROIT)
SELECT
GO TO FIG. 4D
SHOPPING LIST 2 (#, NEW YORK)
SELECT
CREATE A NEW SHOPPING LIST:
NAME LIST:
SELECT MARKET #:
#
CREATE
GO TO FIG. 4D
BROWSE THE AVAIL MARKET
GO TO FIG. 4H
ESTABLISH PRIMARY SEARCH PROFILE (YOU WILL BE ABLE TO EDIT AT ANY TIME):
FLIGHT DATES: FROM
TO
COUNTY
DAY PART 1
DAY PART 1
SHOW CATEGORY
PROGRAM:
SELECT CALC.
CALC RESULT
INCLUDE BUNDLED DEALS
INCLUDE "LATE AVAILS"
SAVE CAMPAIGN SEARCH PROFILE
CONTRACTS AND MAKE-GOODS
GO TO FIG. 4K

FIG. 4C

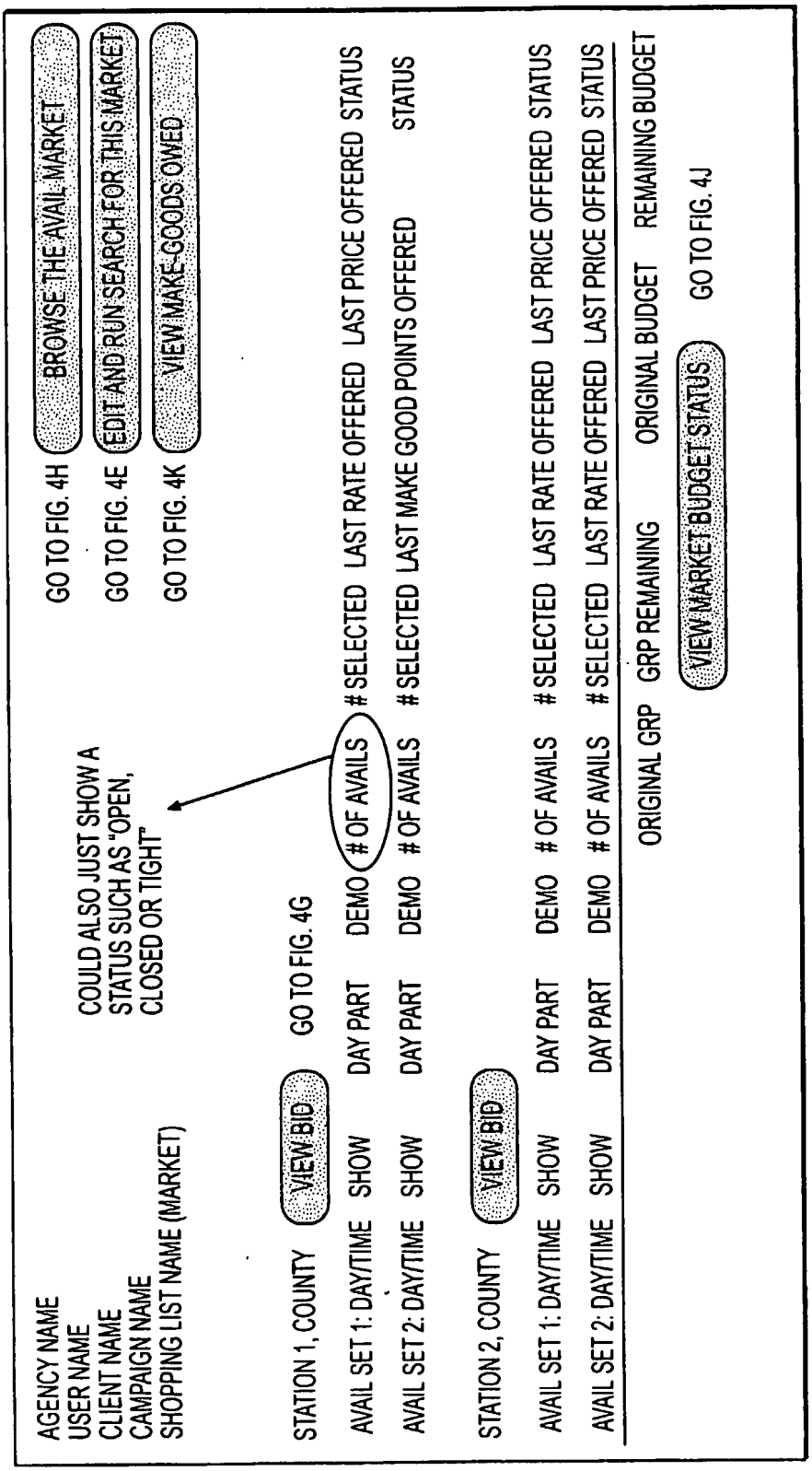
AGENCY NAME
USER NAME
CLIENT NAME
CAMPAIGN NAME
SHOPPING LIST NAME (MARKET)
GO TO FIG. 4H
BROWSE THE AVAIL MARKET
COULD ALSO JUST SHOW A STATUS SUCH AS "OPEN, CLOSED OR TIGHT"
GO TO FIG. 4E
EDIT AND RUN SEARCH FOR THIS MARKET
GO TO FIG. 4K
VIEW MAKE-GOODS OWED
STATION 1, COUNTY
VIEW BID
GO TO FIG. 4G
AVAIL SET 1: DAY/TIME SHOW DAY PART DEMO # OF AVAILS # SELECTED LAST RATE OFFERED LAST PRICE OFFERED STATUS
AVAIL SET 2: DAY/TIME SHOW DAY PART DEMO # OF AVAILS # SELECTED LAST MAKE GOOD POINTS OFFERED STATUS
STATION 2, COUNTY
VIEW BID
AVAIL SET 1: DAY/TIME SHOW DAY PART DEMO # OF AVAILS # SELECTED LAST RATE OFFERED LAST PRICE OFFERED STATUS
AVAIL SET 2: DAY/TIME SHOW DAY PART DEMO # OF AVAILS # SELECTED LAST RATE OFFERED LAST PRICE OFFERED STATUS
ORIGINAL GRP GRP REMAINING ORIGINAL BUDGET REMAINING BUDGET
VIEW MARKET BUDGET STATUS
GO TO FIG. 4J

FIG. 4D

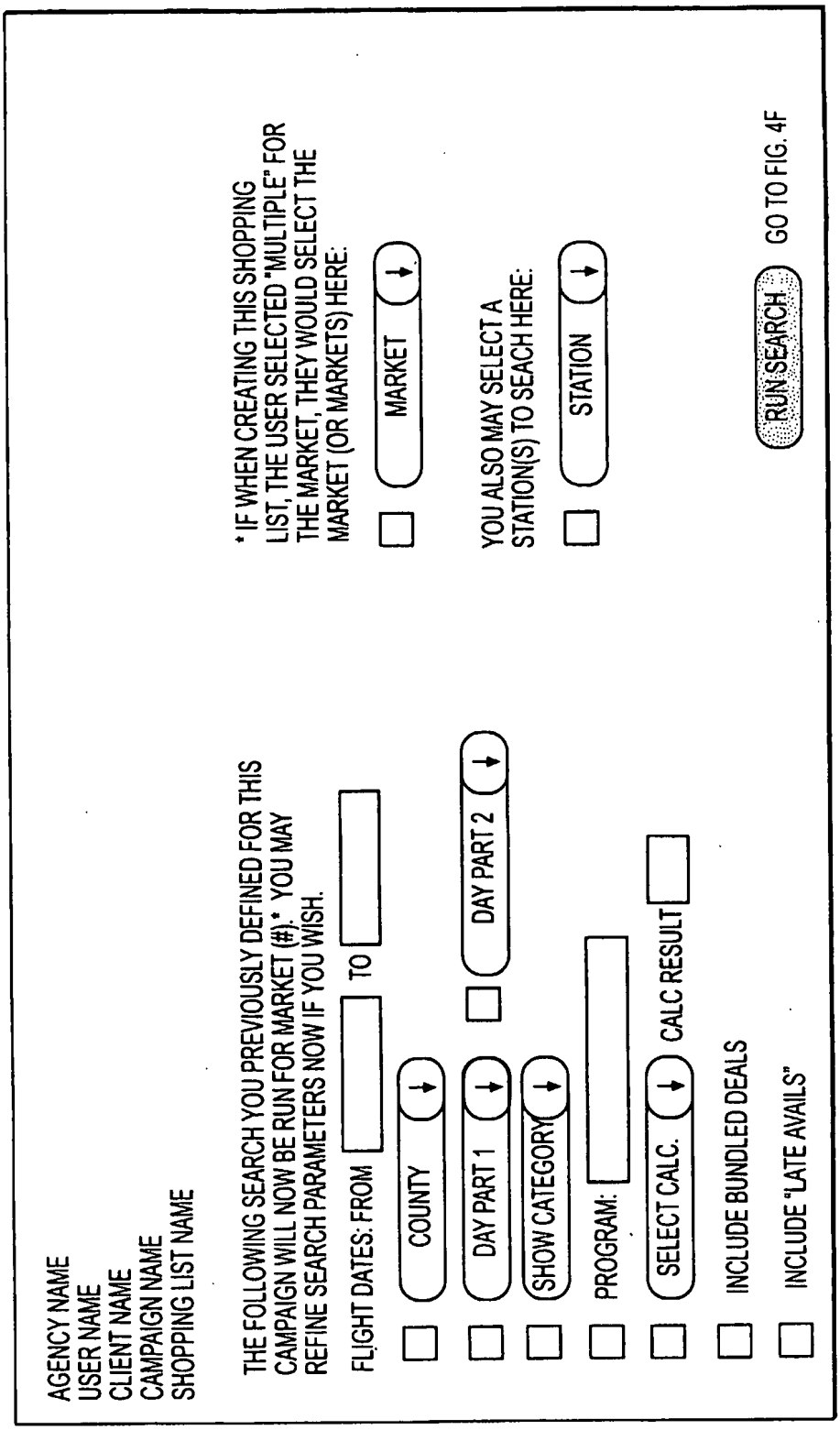
AGENCY NAME
USER NAME
CLIENT NAME
CAMPAIGN NAME
SHOPPING LIST NAME
THE FOLLOWING SEARCH YOU PREVIOUSLY DEFINED FOR THIS CAMPAIGN WILL NOW BE RUN FOR MARKET (#). * YOU MAY REFINE SEARCH PARAMETERS NOW IF YOU WISH.
FLIGHT DATES: FROM
TO
COUNTY
DAY PART 1
DAY PART 2
SHOW CATEGORY
PROGRAM:
SELECT CALC.
CALC RESULT
INCLUDE BUNDLED DEALS
INCLUDE "LATE AVAILS"
* IF WHEN CREATING THIS SHOPPING LIST, THE USER SELECTED "MULTIPLE" FOR THE MARKET, THEY WOULD SELECT THE MARKET (OR MARKETS) HERE:
MARKET
YOU ALSO MAY SELECT A STATION(S) TO SEACH HERE:
STATION
RUN SEARCH
GO TO FIG. 4F

FIG. 4E

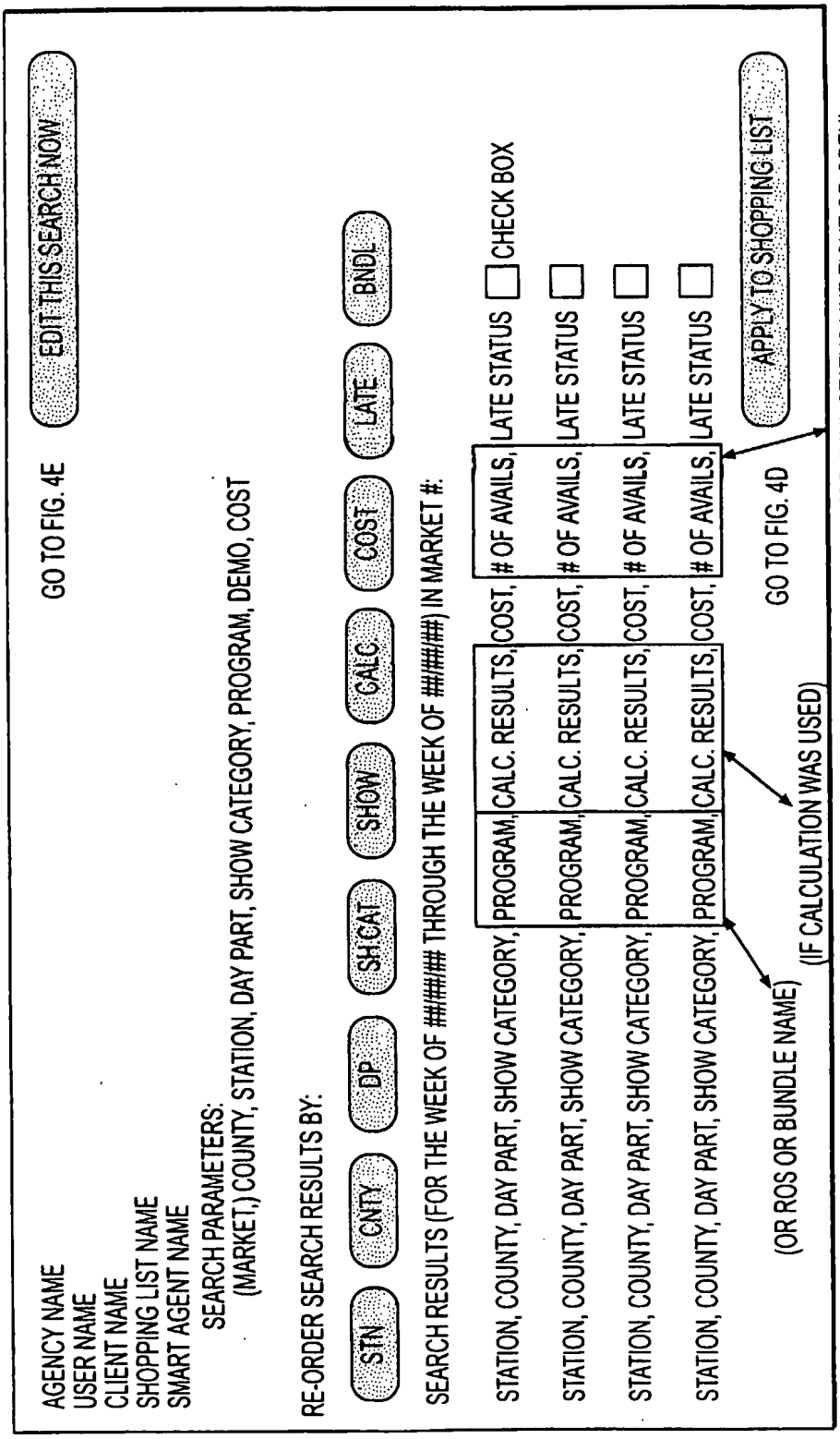
AGENCY NAME
USER NAME
CLIENT NAME
SHOPPING LIST NAME
SMART AGENT NAME
SEARCH PARAMETERS:
(MARKET,) COUNTY, STATION, DAY PART, SHOW CATEGORY, PROGRAM, DEMO, COST
GO TO FIG. 4E
EDIT THIS SEARCH NOW
RE-ORDER SEARCH RESULTS BY:
STN
CNTY
DP
SH CAT
SHOW
CALC
COST
LATE
BNDL
SEARCH RESULTS (FOR THE WEEK OF ###### THROUGH THE WEEK OF ######) IN MARKET #:
STATION, COUNTY, DAY PART, SHOW CATEGORY, PROGRAM, CALC. RESULTS, COST, # OF AVAILS, LATE STATUS CHECK BOX
STATION, COUNTY, DAY PART, SHOW CATEGORY, PROGRAM, CALC. RESULTS, COST, # OF AVAILS, LATE STATUS
STATION, COUNTY, DAY PART, SHOW CATEGORY, PROGRAM, CALC. RESULTS, COST, # OF AVAILS, LATE STATUS
STATION, COUNTY, DAY PART, SHOW CATEGORY, PROGRAM, CALC. RESULTS, COST, # OF AVAILS, LATE STATUS
(OR ROS OR BUNDLE NAME)
(IF CALCULATION WAS USED)
GO TO FIG. 4D
APPLY TO SHOPPING LIST
(OR AVAIL STATUS LIKE TIGHT OR OPEN)

FIG. 4F

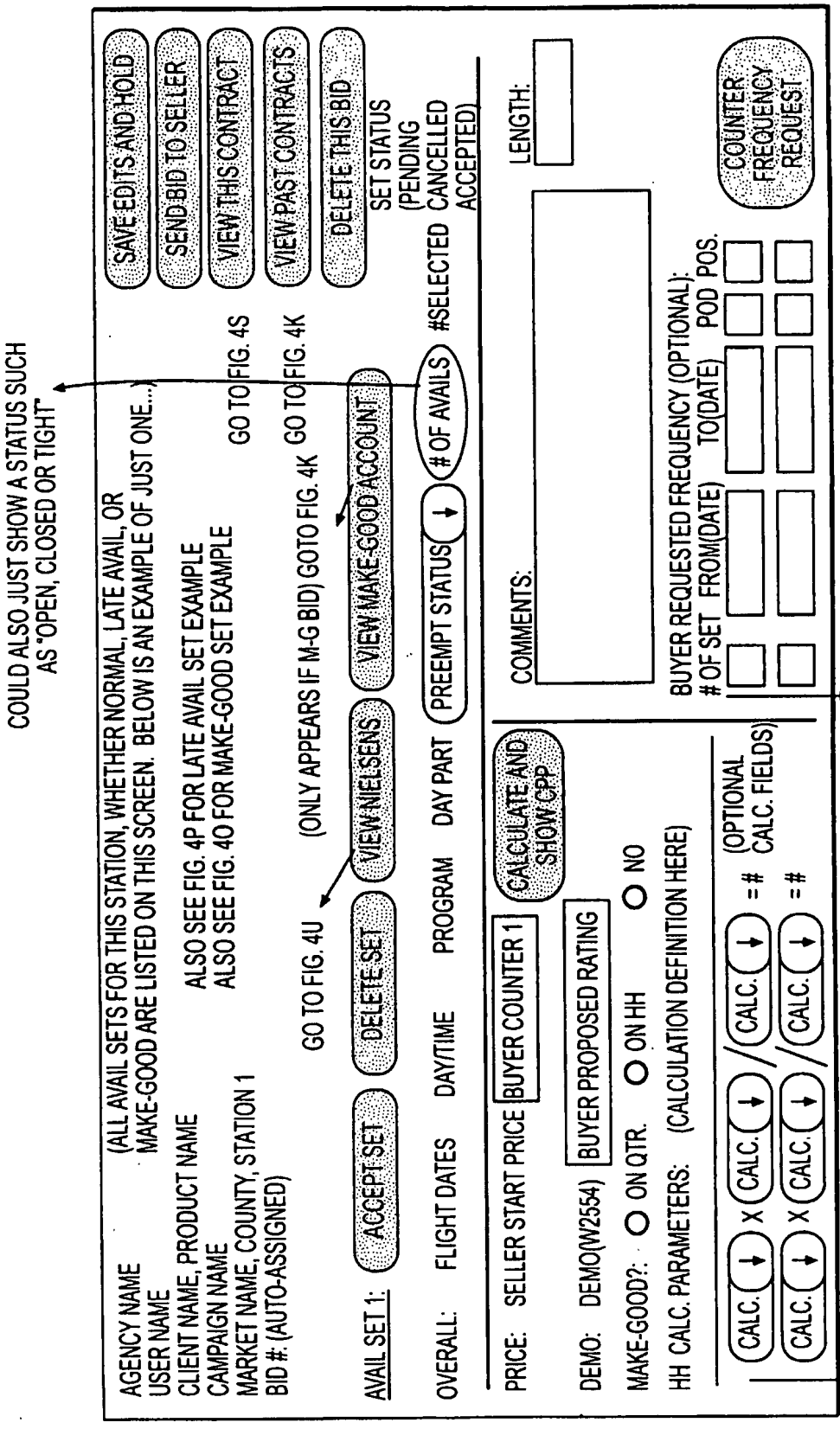
COULD ALSO JUST SHOW A STATUS SUCH AS "OPEN, CLOSED OR TIGHT"
AGENCY NAME
USER NAME
(ALL AVAIL SETS FOR THIS STATION, WHETHER NORMAL, LATE AVAIL, OR MAKE-GOOD ARE LISTED ON THIS SCREEN. BELOW IS AN EXAMPLE OF JUST ONE...)
CLIENT NAME, PRODUCT NAME
CAMPAIGN NAME
MARKET NAME, COUNTY, STATION 1
BID #: (AUTO-ASSIGNED)
ALSO SEE FIG. 4P FOR LATE AVAIL SET EXAMPLE
ALSO SEE FIG. 4O FOR MAKE-GOOD SET EXAMPLE
GO TO FIG. 4S
GO TO FIG. 4K
SAVE EDITS AND HOLD
SEND BID TO SELLER
VIEW THIS CONTRACT
VIEW PAST CONTRACTS
DELETE THIS BID
SET STATUS (PENDING CANCELLED ACCEPTED)
GO TO FIG. 4U
(ONLY APPEARS IF M-G BID) GOTO FIG. 4K
AVAIL SET 1:
ACCEPT SET
DELETE SET
VIEW NIELSENS
VIEW MAKE-GOOD ACCOUNT
OVERALL:
FLIGHT DATES
DAY/TIME
PROGRAM
DAY PART
PREEMPT STATUS
OF AVAILS
#SELECTED
PRICE:
SELLER START PRICE
BUYER COUNTER 1
CALCULATE AND SHOW CPP
COMMENTS:
LENGTH:
DEMO:
DEMO(W2554)
BUYER PROPOSED RATING
MAKE-GOOD?:
ON QTR.
ON HH
NO
HH CALC. PARAMETERS:
(CALCULATION DEFINITION HERE)
CALC.
X
=#
(OPTIONAL CALC. FIELDS)
BUYER REQUESTED FREQUENCY (OPTIONAL):
# OF SET
FROM(DATE)
TO(DATE)
POD
POS.
COUNTER FREQUENCY REQUEST

FIG. 4G

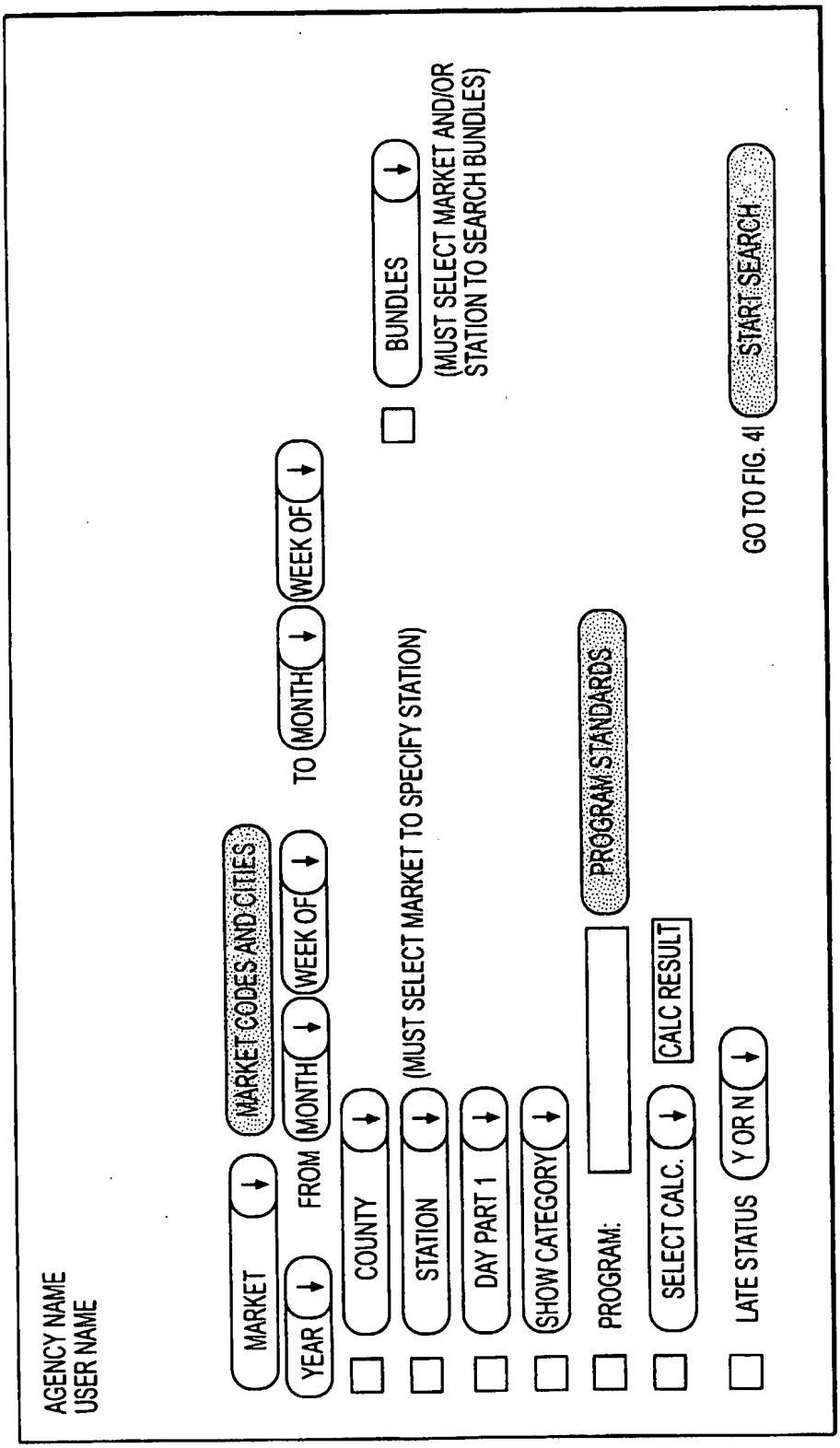
AGENCY NAME
USER NAME
MARKET
MARKET CODES AND CITIES
YEAR
FROM
MONTH
WEEK OF
TO
MONTH
WEEK OF
COUNTY
STATION
(MUST SELECT MARKET TO SPECIFY STATION)
BUNDLES
(MUST SELECT MARKET AND/OR STATION TO SEARCH BUNDLES)
DAY PART 1
SHOW CATEGORY
PROGRAM:
PROGRAM STANDARDS
SELECT CALC.
CALC RESULT
LATE STATUS
Y OR N
GO TO FIG. 4I
START SEARCH

FIG. 4H

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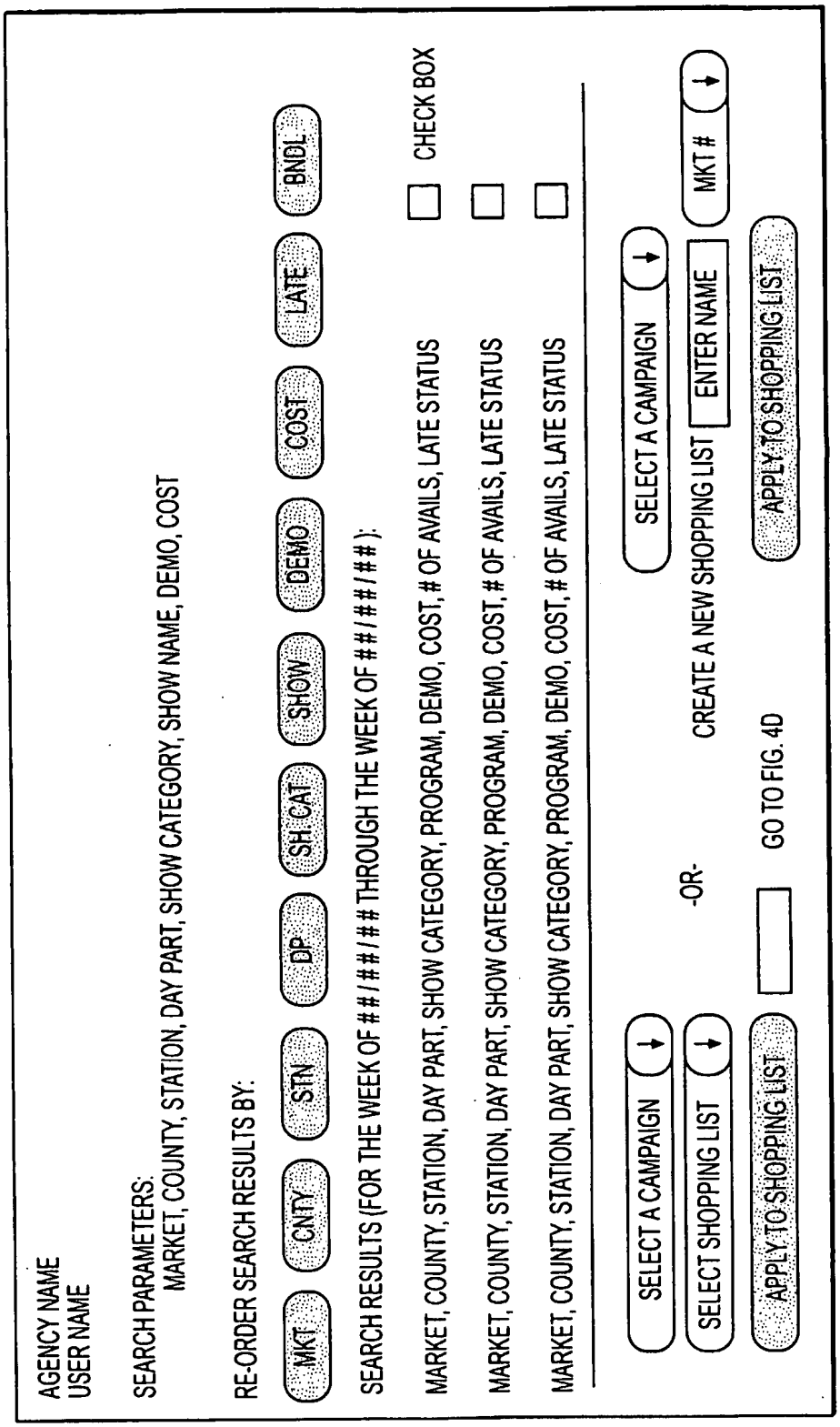
AGENCY NAME
USER NAME
SEARCH PARAMETERS:
MARKET, COUNTY, STATION, DAY PART, SHOW CATEGORY, SHOW NAME, DEMO, COST
RE-ORDER SEARCH RESULTS BY:
MKT
CNTY
STN
DP
SH CAT
SHOW
DEMO
COST
LATE
BNDL
SEARCH RESULTS (FOR THE WEEK OF ##/##/## THROUGH THE WEEK OF ##/##/##):
MARKET, COUNTY, STATION, DAY PART, SHOW CATEGORY, PROGRAM, DEMO, COST, # OF AVAILS, LATE STATUS
CHECK BOX
MARKET, COUNTY, STATION, DAY PART, SHOW CATEGORY, PROGRAM, DEMO, COST, # OF AVAILS, LATE STATUS
MARKET, COUNTY, STATION, DAY PART, SHOW CATEGORY, PROGRAM, DEMO, COST, # OF AVAILS, LATE STATUS
SELECT A CAMPAIGN
SELECT A CAMPAIGN
SELECT SHOPPING LIST
-OR-
CREATE A NEW SHOPPING LIST
ENTER NAME
MKT #
APPLY TO SHOPPING LIST
GO TO FIG. 4D
APPLY TO SHOPPING LIST

FIG. 4I

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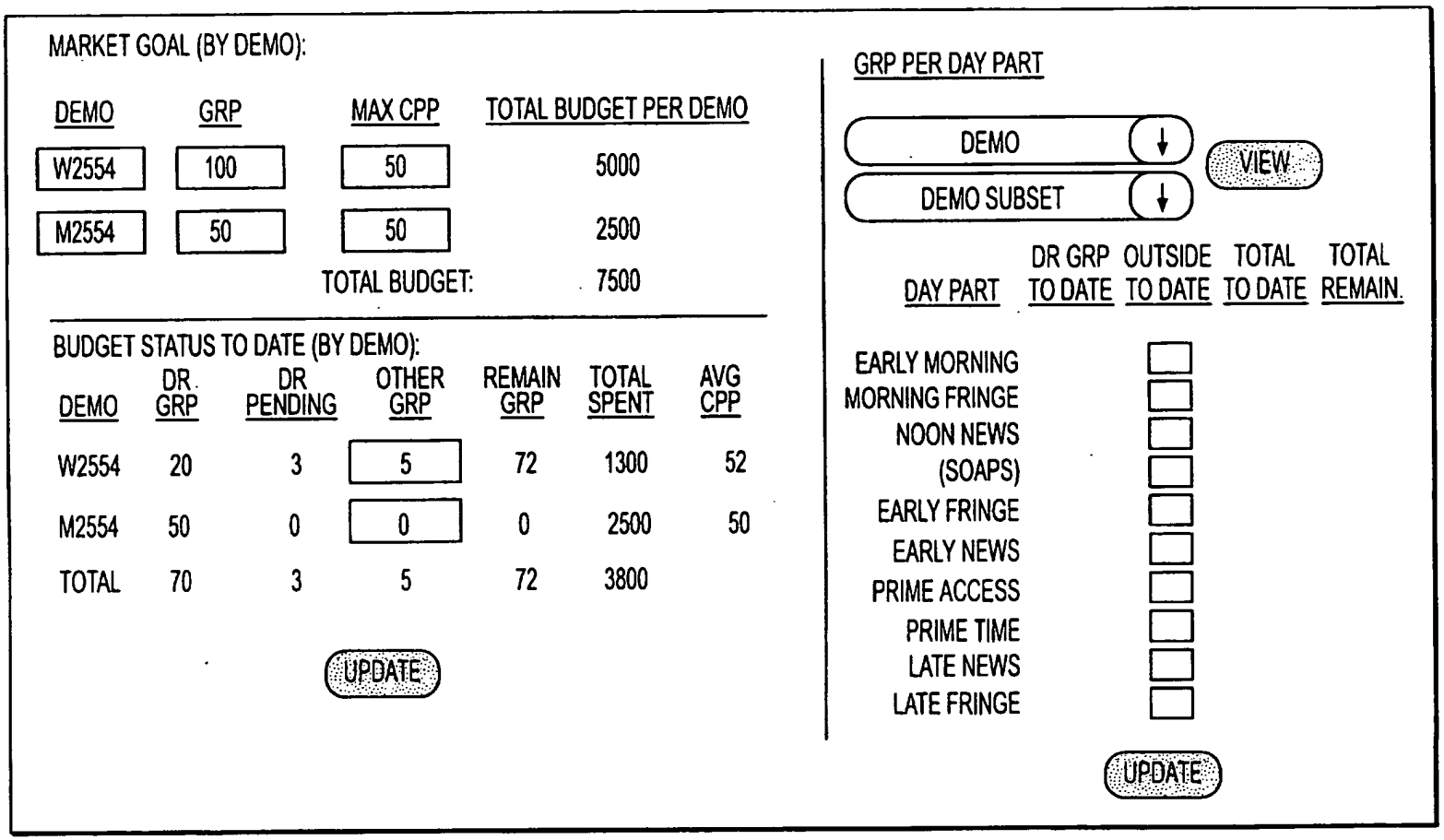
MARKET GOAL (BY DEMO):
DEMO
GRP
MAX CPP
TOTAL BUDGET PER DEMO
W2554
100
50
5000
M2554
50
50
2500
TOTAL BUDGET:
7500
BUDGET STATUS TO DATE (BY DEMO):
DEMO
DR GRP
DR PENDING
OTHER GRP
REMAIN GRP
TOTAL SPENT
AVG CPP
W2554
20
3
5
72
1300
52
M2554
50
0
0
0
2500
50
TOTAL
70
3
5
72
3800
UPDATE
GRP PER DAY PART
DEMO
DEMO SUBSET
VIEW
DAY PART
DR GRP TO DATE
OUTSIDE TO DATE
TOTAL TO DATE
TOTAL REMAIN.
EARLY MORNING
MORNING FRINGE
NOON NEWS
(SOAPS)
EARLY FRINGE
EARLY NEWS
PRIME ACCESS
PRIME TIME
LATE NEWS
LATE FRINGE
UPDATE

FIG. 4J

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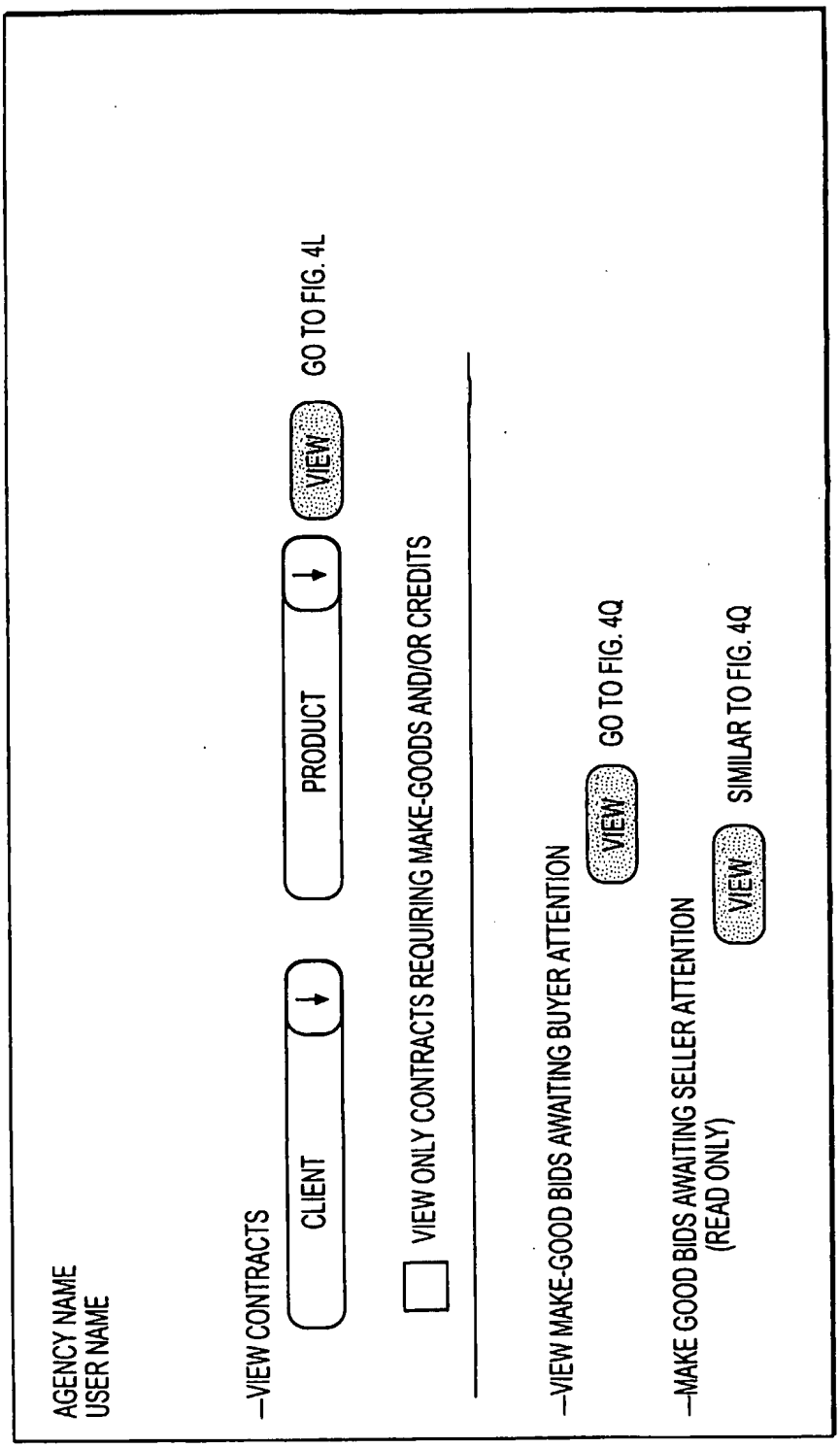
AGENCY NAME
USER NAME
—VIEW CONTRACTS
CLIENT
PRODUCT
VIEW
GO TO FIG. 4L
VIEW ONLY CONTRACTS REQUIRING MAKE-GOODS AND/OR CREDITS
—VIEW MAKE-GOOD BIDS AWAITING BUYER ATTENTION
VIEW
GO TO FIG. 4Q
—MAKE GOOD BIDS AWAITING SELLER ATTENTION
(READ ONLY)
VIEW
SIMILAR TO FIG. 4Q

FIG.4K

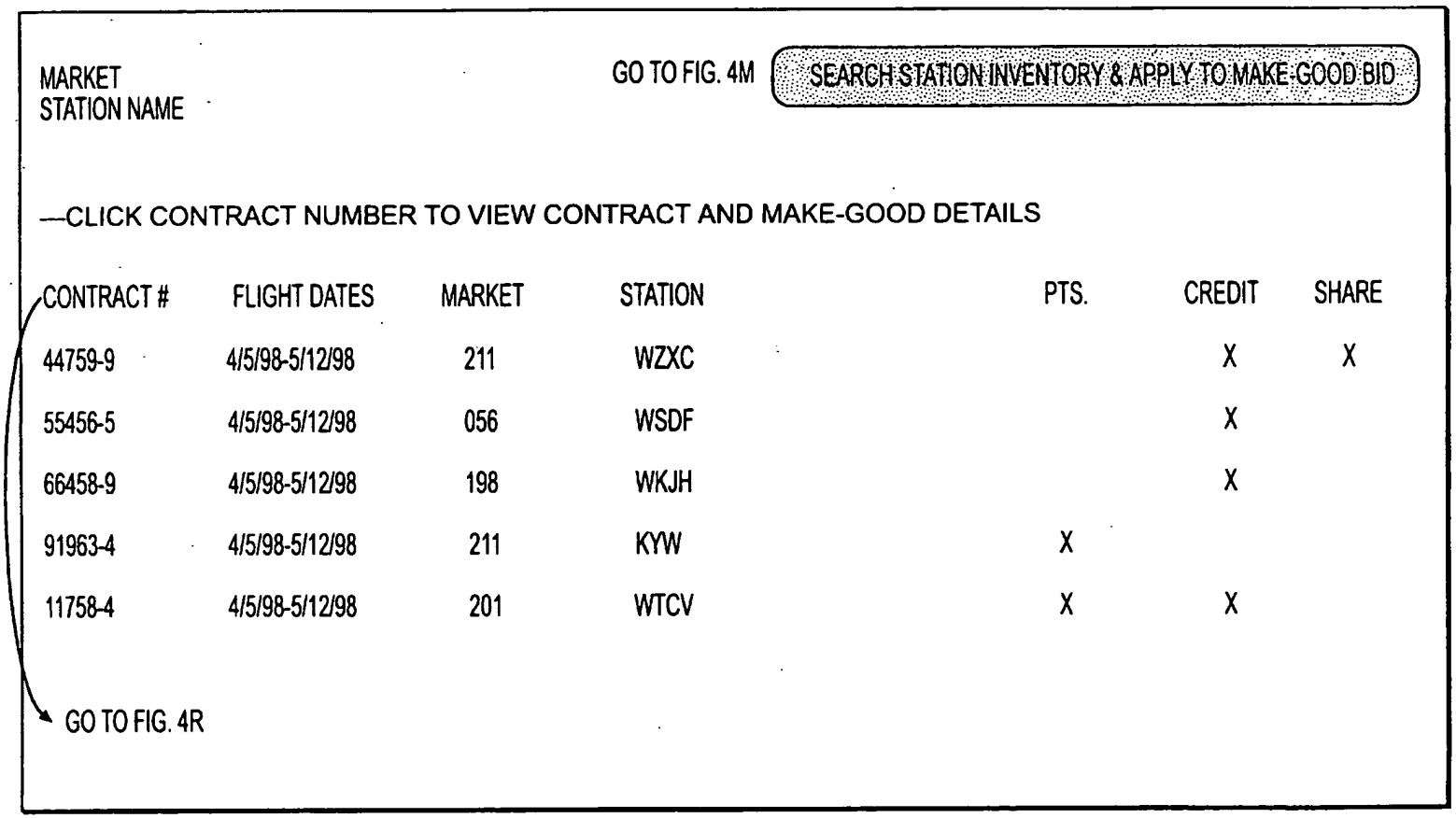
MARKET
STATION NAME
GO TO FIG. 4M
SEARCH STATION INVENTORY & APPLY TO MAKE-GOOD BID
—CLICK CONTRACT NUMBER TO VIEW CONTRACT AND MAKE-GOOD DETAILS
CONTRACT # FLIGHT DATES MARKET STATION PTS. CREDIT SHARE
44759-9 4/5/98-5/12/98 211 WZXC X X
55456-5 4/5/98-5/12/98 056 WSDF X
66458-9 4/5/98-5/12/98 198 WKJH X
91963-4 4/5/98-5/12/98 211 KYW X
11758-4 4/5/98-5/12/98 201 WTCV X X
GO TO FIG. 4R

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FIG.4L

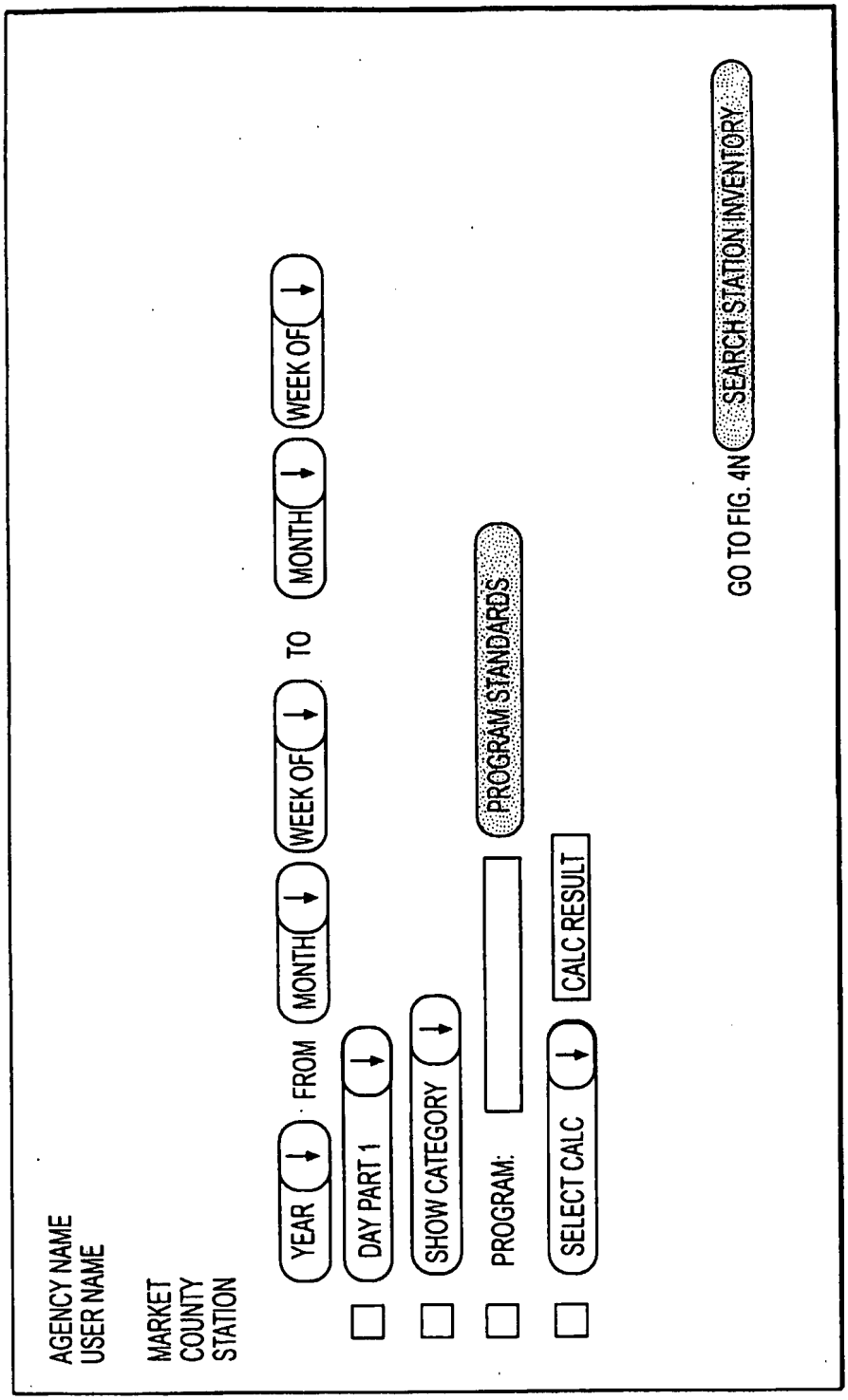

AGENCY NAME
USER NAME
MARKET
COUNTY
STATION
YEAR
FROM
MONTH
WEEK OF
TO
MONTH
WEEK OF
DAY PART 1
SHOW CATEGORY
PROGRAM:
PROGRAM STANDARDS
SELECT CALC
CALC RESULT
GO TO FIG. 4N
SEARCH STATION INVENTORY

FIG.4M

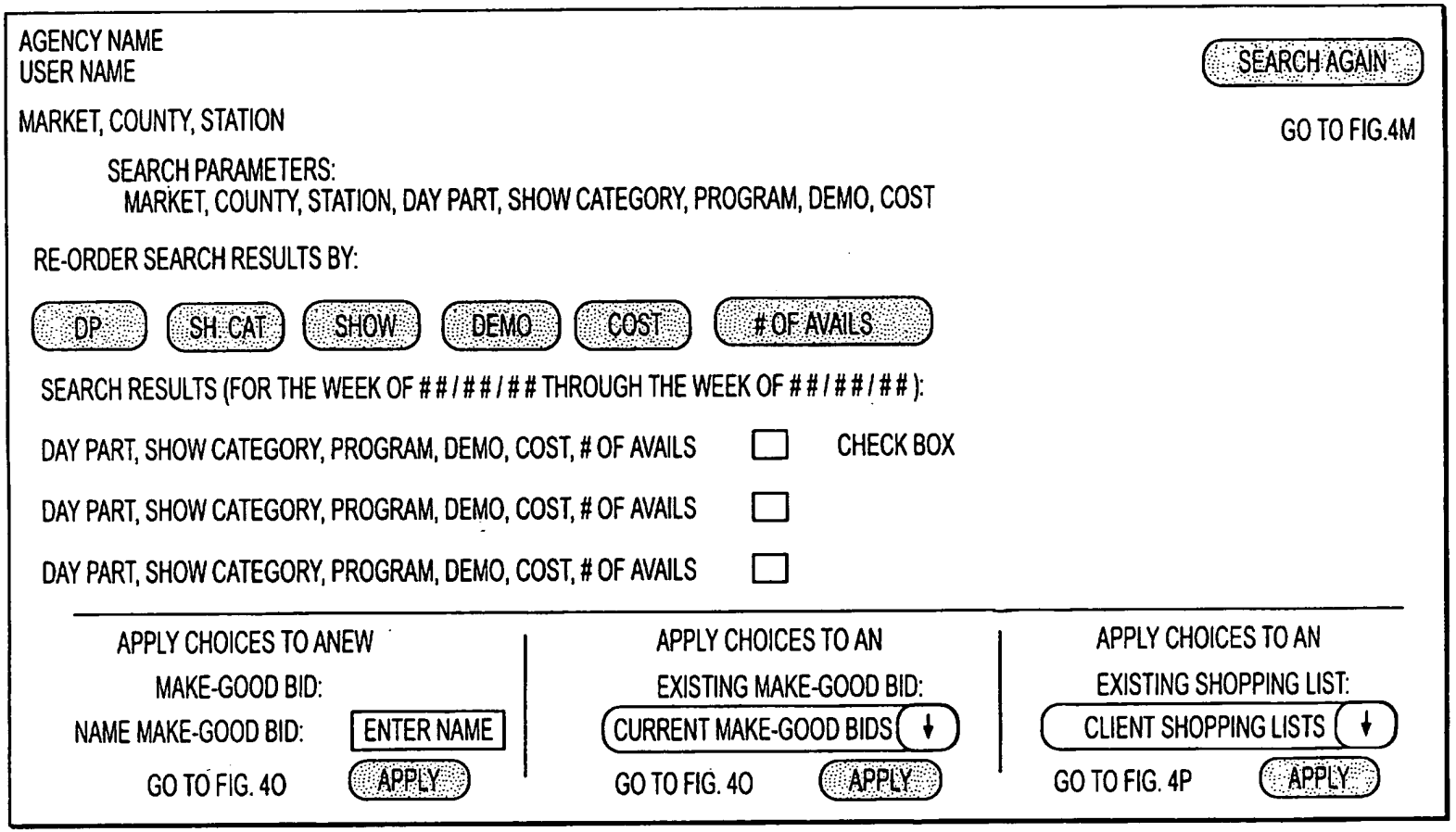

AGENCY NAME
USER NAME
SEARCH AGAIN
MARKET, COUNTY, STATION
GO TO FIG.4M
SEARCH PARAMETERS:
MARKET, COUNTY, STATION, DAY PART, SHOW CATEGORY, PROGRAM, DEMO, COST
RE-ORDER SEARCH RESULTS BY:
DP
SH. CAT
SHOW
DEMO
COST
OF AVAILS
SEARCH RESULTS (FOR THE WEEK OF ##/##/## THROUGH THE WEEK OF ##/##/##):
DAY PART, SHOW CATEGORY, PROGRAM, DEMO, COST, # OF AVAILS
CHECK BOX
DAY PART, SHOW CATEGORY, PROGRAM, DEMO, COST, # OF AVAILS
DAY PART, SHOW CATEGORY, PROGRAM, DEMO, COST, # OF AVAILS
APPLY CHOICES TO ANEW MAKE-GOOD BID:
NAME MAKE-GOOD BID:
ENTER NAME
GO TO FIG. 4O
APPLY
APPLY CHOICES TO AN EXISTING MAKE-GOOD BID:
CURRENT MAKE-GOOD BIDS
GO TO FIG. 4O
APPLY
APPLY CHOICES TO AN EXISTING SHOPPING LIST:
CLIENT SHOPPING LISTS
GO TO FIG. 4P
APPLY

FIG.4N

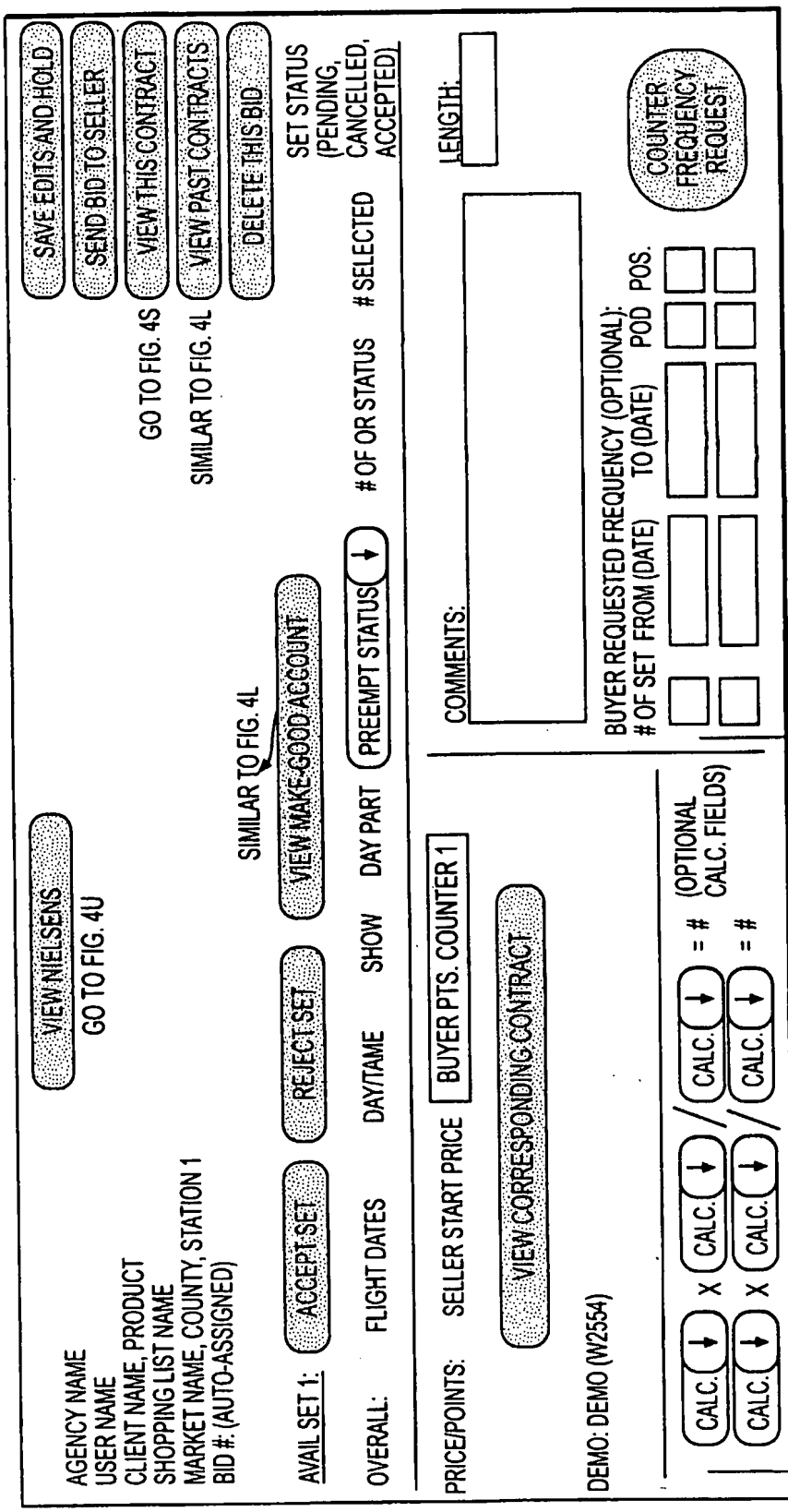

AGENCY NAME
USER NAME
CLIENT NAME, PRODUCT
SHOPPING LIST NAME
MARKET NAME, COUNTY, STATION 1
BID #: (AUTO-ASSIGNED)
VIEW NIELSENS
GO TO FIG. 4U
SAVE EDITS AND HOLD
SEND BID TO SELLER
VIEW THIS CONTRACT
GO TO FIG. 4S
VIEW PAST CONTRACTS
SIMILAR TO FIG. 4L
DELETE THIS BID
SIMILAR TO FIG. 4L
AVAIL SET 1:
ACCEPT SET
REJECT SET
VIEW MAKE-GOOD ACCOUNT
SET STATUS (PENDING, CANCELLED, ACCEPTED)
OVERALL:
FLIGHT DATES
DAY/TAME
SHOW
DAY PART
PREEMPT STATUS
OF OR STATUS
SELECTED
PRICE/POINTS:
SELLER START PRICE
BUYER PTS. COUNTER 1
COMMENTS:
LENGTH:
VIEW CORRESPONDING CONTRACT
DEMO: DEMO (W2554)
BUYER REQUESTED FREQUENCY (OPTIONAL):
OF SET FROM (DATE)
TO (DATE)
POD
POS.
CALC.
X
CALC.
/
CALC.
= #
(OPTIONAL CALC. FIELDS)
CALC.
X
CALC.
/
CALC.
= #
COUNTER FREQUENCY REQUEST

FIG.40

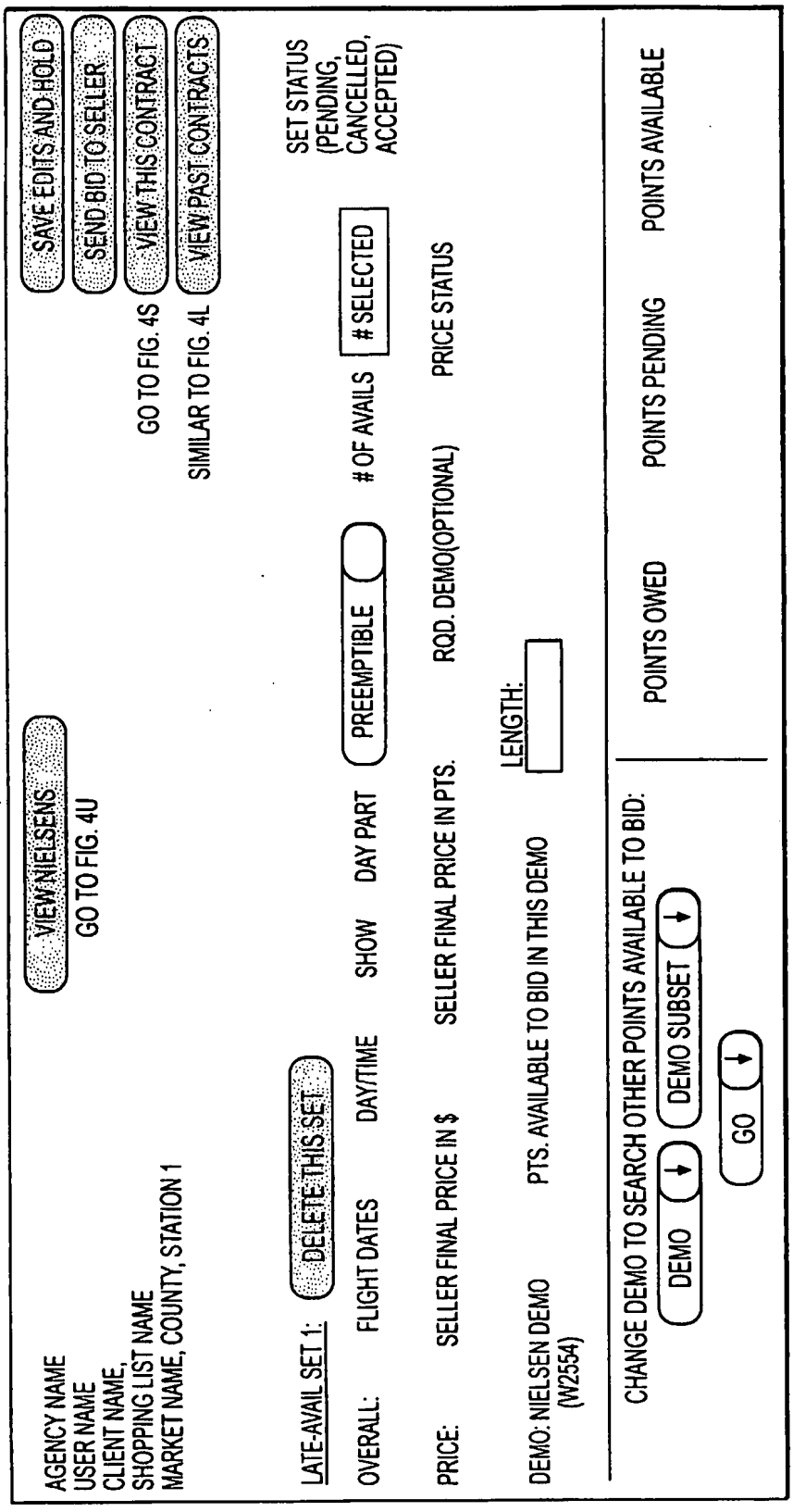

AGENCY NAME
USER NAME
CLIENT NAME,
SHOPPING LIST NAME
MARKET NAME, COUNTY, STATION 1
VIEW NIELSENS
GO TO FIG. 4U
SAVE EDITS AND HOLD
SEND BID TO SELLER
GO TO FIG. 4S
VIEW THIS CONTRACT
SIMILAR TO FIG. 4L
VIEW PAST CONTRACTS
LATE-AVAIL SET 1:
DELETE THIS SET
OVERALL:
FLIGHT DATES
DAY/TIME
SHOW
DAY PART
PREEMPTIBLE
OF AVAILS
SELECTED
SET STATUS (PENDING, CANCELLED, ACCEPTED)
PRICE:
SELLER FINAL PRICE IN $
SELLER FINAL PRICE IN PTS.
RQD. DEMO(OPTIONAL)
PRICE STATUS
DEMO: NIELSEN DEMO (W2554)
PTS. AVAILABLE TO BID IN THIS DEMO
LENGTH:
CHANGE DEMO TO SEARCH OTHER POINTS AVAILABLE TO BID:
DEMO
DEMO SUBSET
GO
POINTS OWED
POINTS PENDING
POINTS AVAILABLE

FIG.4P

AGENCY NAME
USER NAME

—CLICK ON CONTRACT # TO VIEW AND EDIT DETAILS
—CLICK ON COLUMN HEADER TO RE-ORDER LIST

WILL LOOK LIKE FIG.4R

MAKE-GOODS BIDS AWAITING BUYER ATTENTION

CONTRACT #	BID DATE	AGENCY	ADVERTISER	PRODUCT	PTS.	CREDIT	SHARE
44759-9	4/5/98	GREY	NABISCO	OREO		X	X
55456-5	7/5/98	GREY	PEPSI	PEPSI		X	
66458-9	6/8/98	SAATCHI & SAATCHI	COCA-COLA	MINUTE MAID		X	
91963-4	4/8/98	SAATCHI & SAATCHI	COCA-COLA	COCA-COLA	X		
11758-4	3/25/98	SAATCHI & SAATCHI	COCA-COLA	FRUTOPIA	X	X	

FIG.4Q

CONTRACT #
CONTRACT DATE

GO TO FIG. 4S | BACK TO FIRST PAGE OF CONTRACT

FREQUENCY DETAILS

AVAIL SET 1:

FLIGHT DATES	DAY/TIME	PROGRAM	# OF SPOTS	EFFECTIVE DATES	LENGTH	M-G TYPE	DEMO/RTG	RATE	CLASS
6/3/98-6/26/98	MF	AM NEWS	2	6/3-6/5	30	QTR.	W2554/1	300	PRE
6/3/98-6/26/98	MF	AM NEWS	2	6/24-6/25	30	QTR.	W2554/1	300	PRE

# OF SET	FROM (DATE)	TO (DATE)	POD	POS.
1	6/3	6/3	1	ANY
1	6/5	6/5	1	ANY
2	6/24	6/25	ANY	ANY

BUYER COMMENTS AND INSTRUCTIONS:

FIG.4T

AGENCY NAME
USER NAME

SEARCH STATION INVENTORY & APPLY TO MAKE-GOOD BID

GO TO FIG. 4M

CONTRACT #
CONTRACT DATE
MARKET, STATION
ADVERTISER, PRODUCT

MAKE-GOOD DETAILS:

MAKE-GOOD 1:

FLIGHT DAY/TIME SHOW DAY PART # OF AVAILS DEMO GRP CONTRACTED GRP DELIVERED GRP OWED GRP PEND.

MAKE-GOOD 2:

FLIGHT DAY/TIME SHOW DAY PART # OF AVAILS # AIRED ISCI #S NOT AIRED # OWED (CREDIT) $ VALUE

(ORIGINAL CONTRACT DETAILS)
(ORIGINAL CONTRACT BOILER PLATE LANGUAGE)

GO TO FIG.4S

FIG. 4R

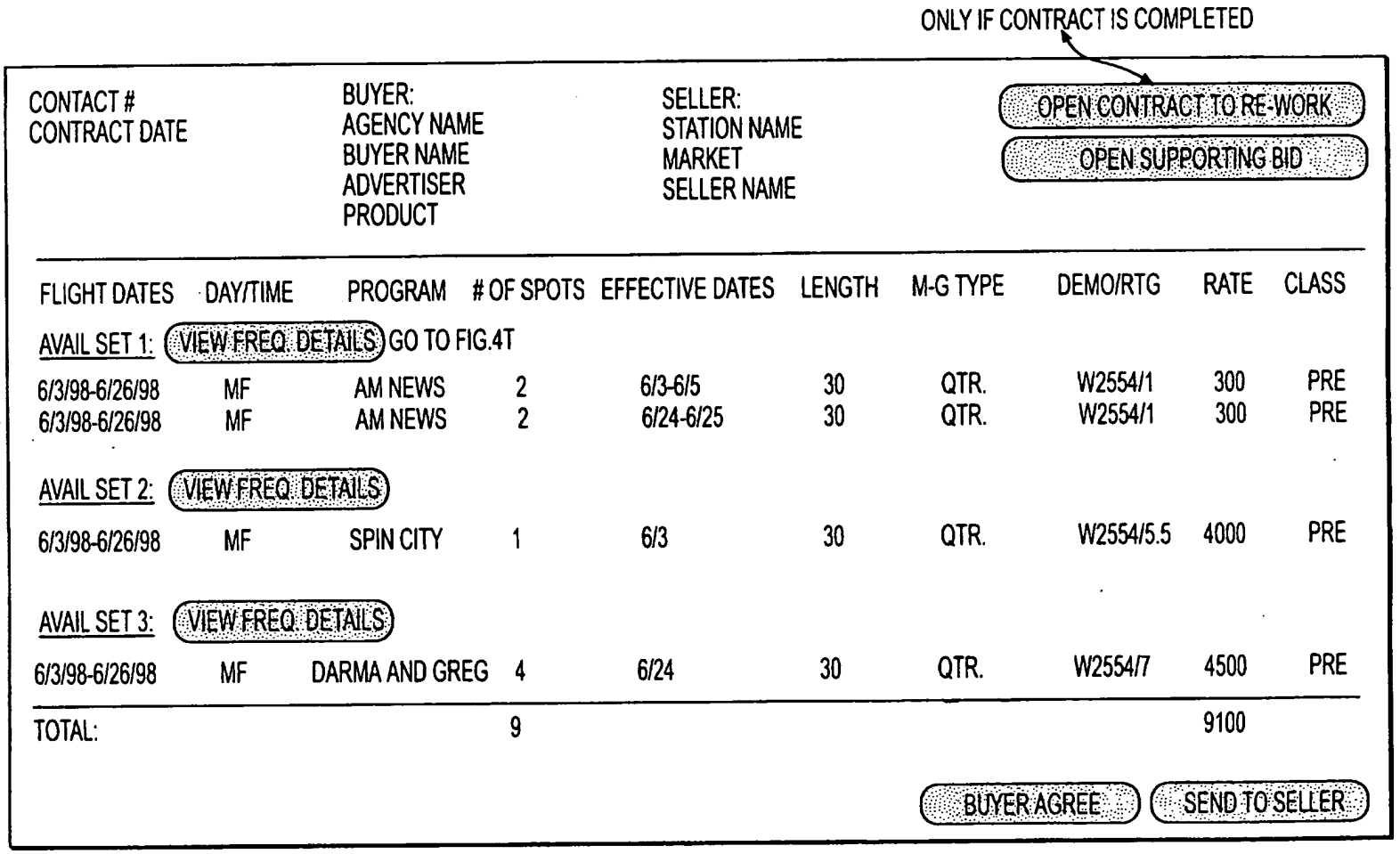

ONLY IF CONTRACT IS COMPLETED
CONTACT #
CONTRACT DATE
BUYER:
AGENCY NAME
BUYER NAME
ADVERTISER
PRODUCT
SELLER:
STATION NAME
MARKET
SELLER NAME
OPEN CONTRACT TO RE-WORK
OPEN SUPPORTING BID
FLIGHT DATES
DAY/TIME
PROGRAM
OF SPOTS
EFFECTIVE DATES
LENGTH
M-G TYPE
DEMO/RTG
RATE
CLASS
AVAIL SET 1:
VIEW FREQ. DETAILS
GO TO FIG.4T
6/3/98-6/26/98 MF AM NEWS 2 6/3-6/5 30 QTR. W2554/1 300 PRE
6/3/98-6/26/98 MF AM NEWS 2 6/24-6/25 30 QTR. W2554/1 300 PRE
AVAIL SET 2:
VIEW FREQ. DETAILS
6/3/98-6/26/98 MF SPIN CITY 1 6/3 30 QTR. W2554/5.5 4000 PRE
AVAIL SET 3:
VIEW FREQ. DETAILS
6/3/98-6/26/98 MF DARMA AND GREG 4 6/24 30 QTR. W2554/7 4500 PRE
TOTAL: 9 9100
BUYER AGREE
SEND TO SELLER

FIG.4S

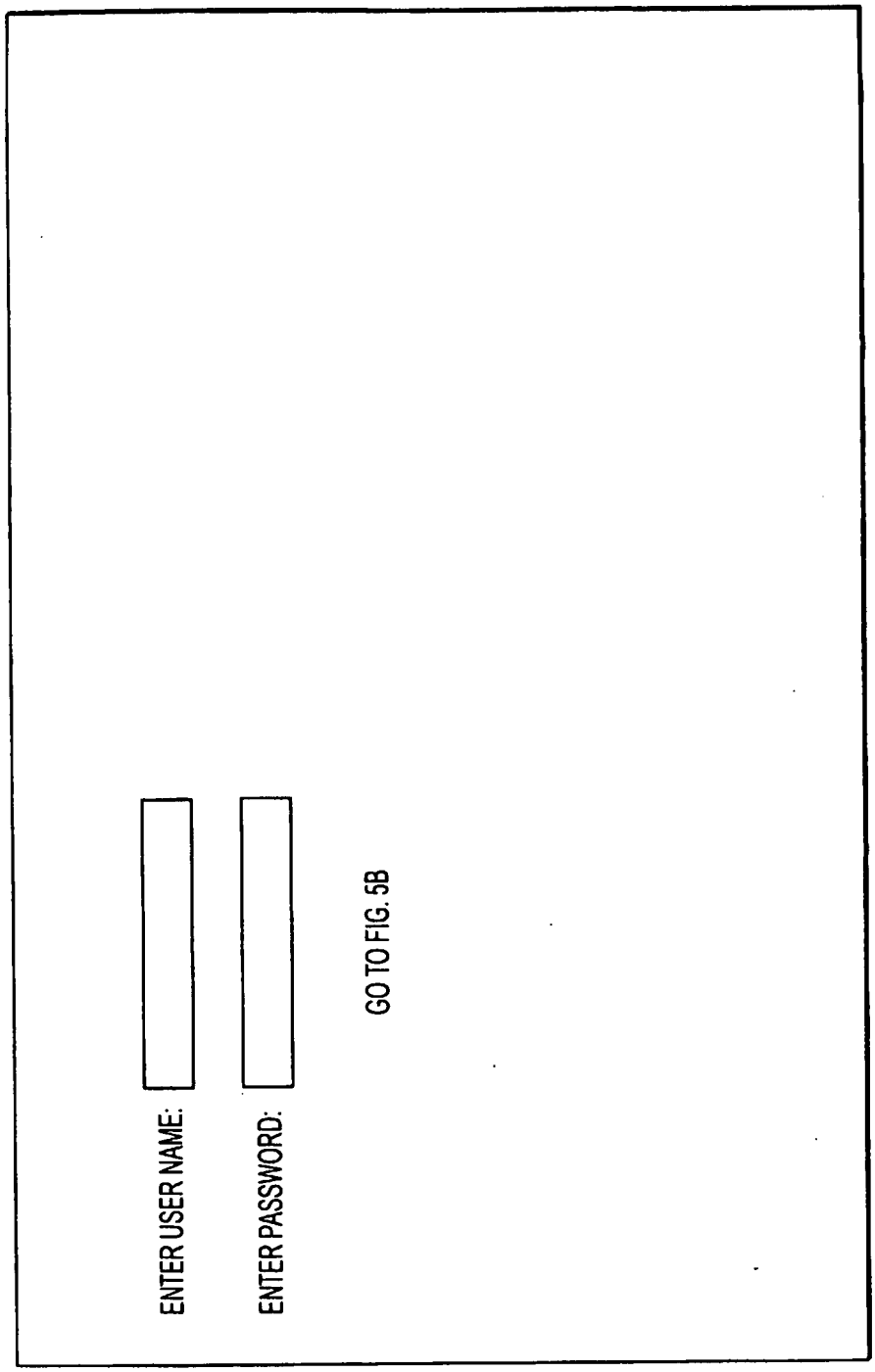


FIG. 5A

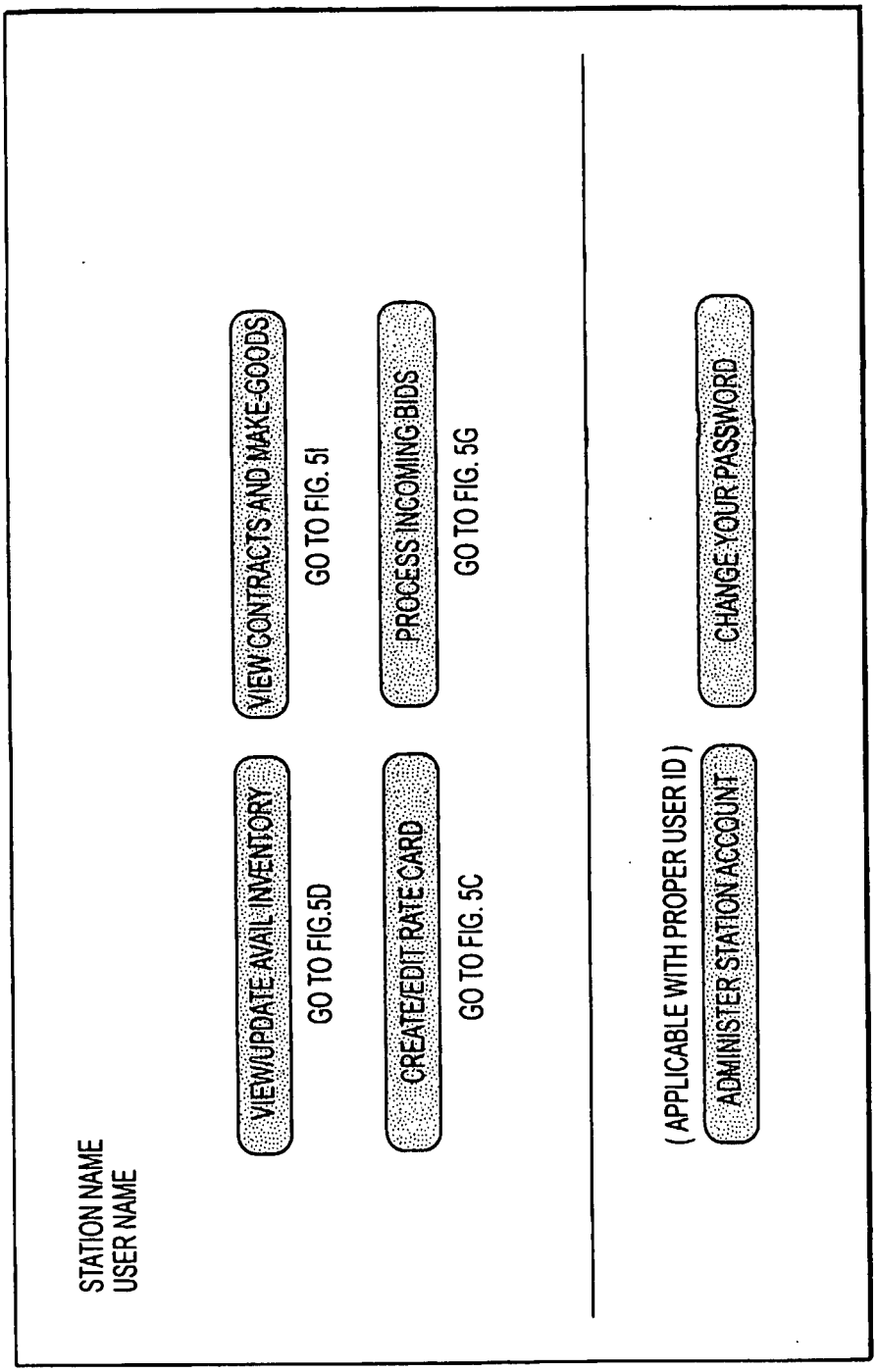

STATION NAME
USER NAME
VIEW/UPDATE AVAIL INVENTORY
GO TO FIG.5D
CREATE/EDIT RATE CARD
GO TO FIG. 5C
VIEW CONTRACTS AND MAKE GOODS
GO TO FIG. 5I
PROCESS INCOMING BIDS
GO TO FIG. 5G
(APPLICABLE WITH PROPER USER ID)
ADMINISTER STATION ACCOUNT
CHANGE YOUR PASSWORD

FIG. 5B

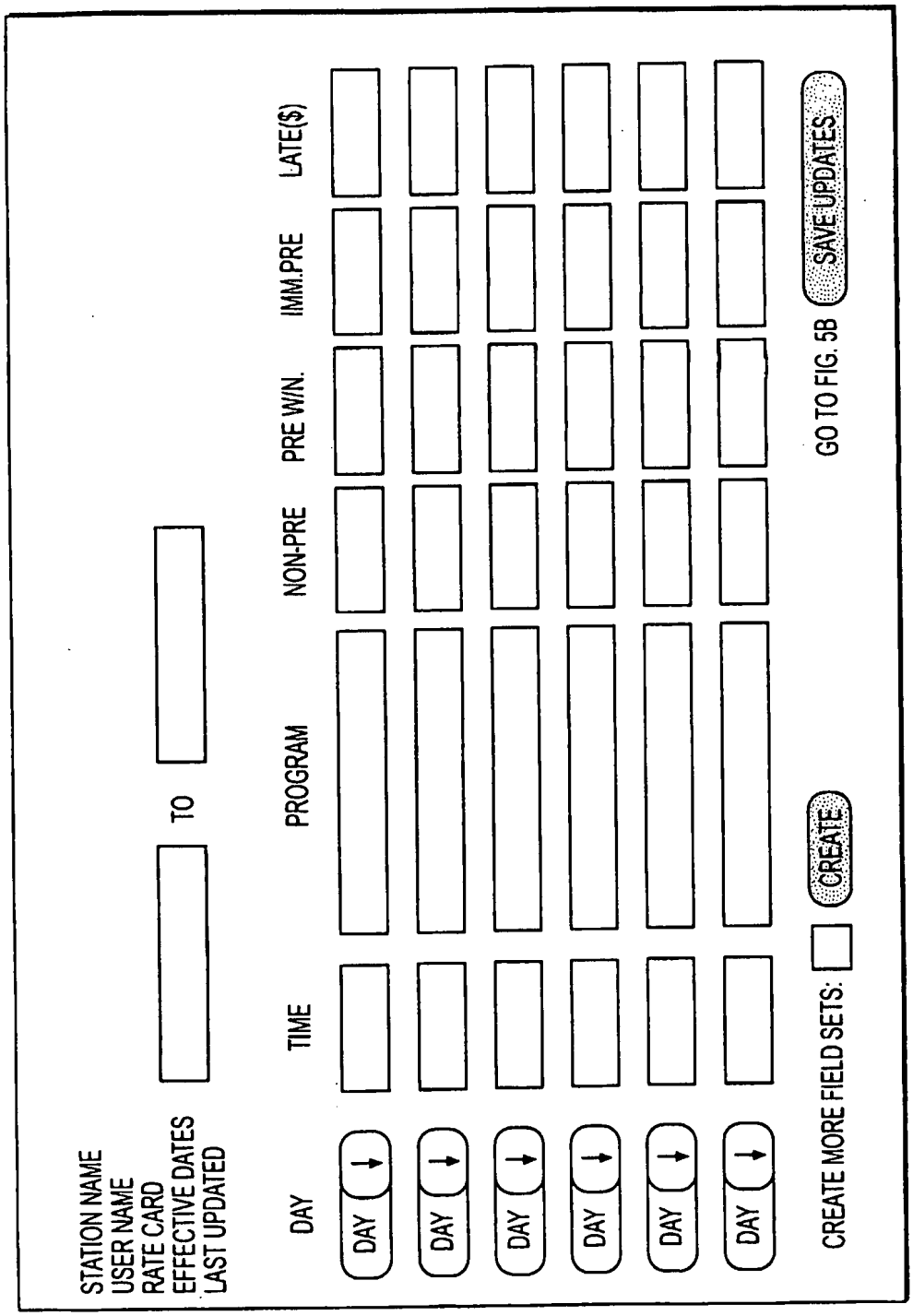

STATION NAME
USER NAME
RATE CARD
EFFECTIVE DATES
LAST UPDATED
TO
DAY
TIME
PROGRAM
NON-PRE
PRE W/N.
IMM.PRE
LATE($)
DAY
DAY
DAY
DAY
DAY
DAY
CREATE MORE FIELD SETS:
CREATE
GO TO FIG. 5B
SAVE UPDATES

FIG. 5C

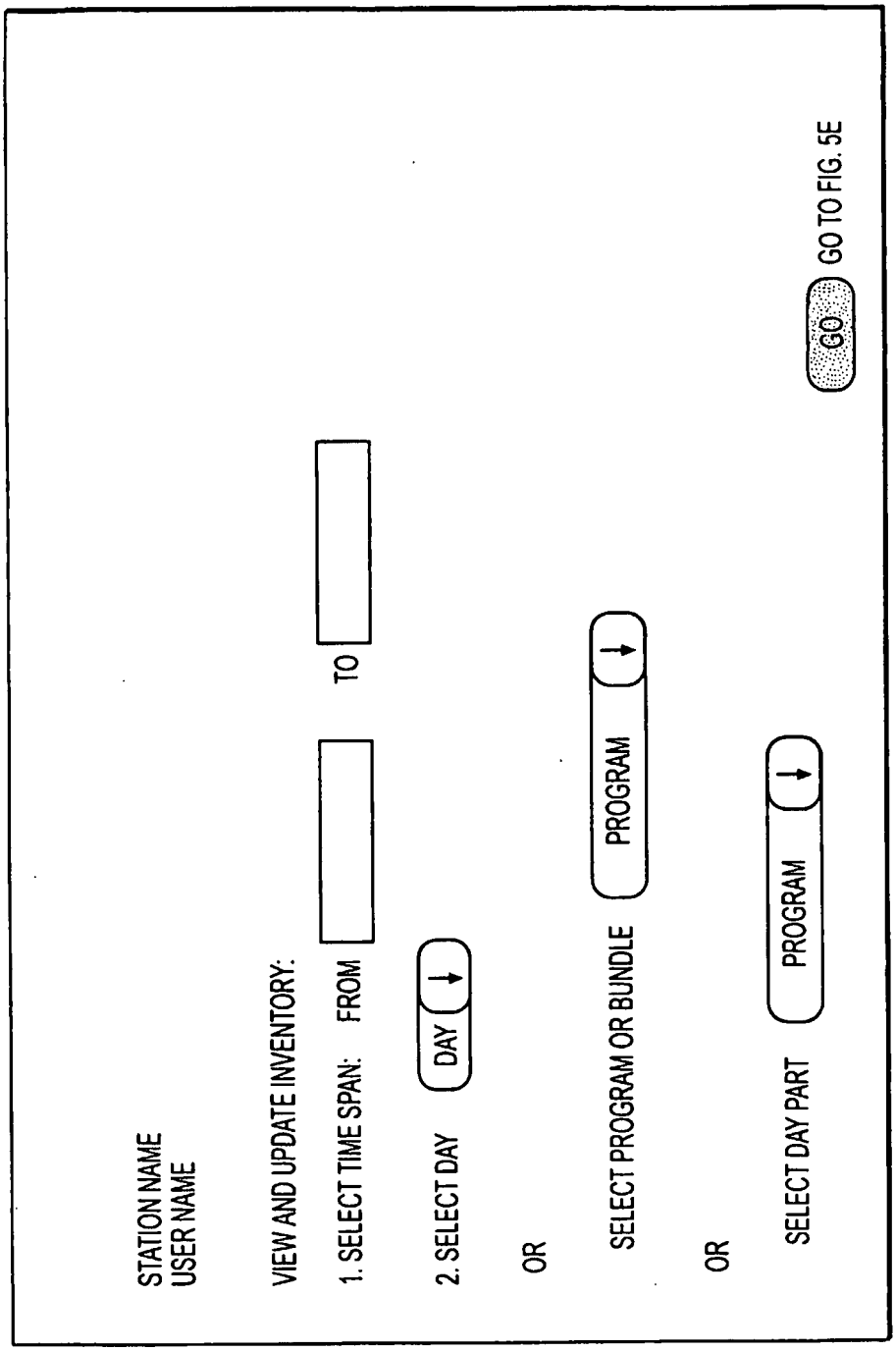

STATION NAME
USER NAME
VIEW AND UPDATE INVENTORY:
1. SELECT TIME SPAN: FROM
TO
2. SELECT DAY
DAY
OR
SELECT PROGRAM OR BUNDLE
PROGRAM
OR
SELECT DAY PART
PROGRAM
GO
GO TO FIG. 5E

FIG. 5D

STATION NAME
USER NAME

GO TO FIG. 5D EDIT SCHEDULE ON RATE CARD

GO TO FIG. 5L CREATE SPECIAL INVENTORY (BUNDLES)

—CLICK ON AVAIL NUMBER TO VIEW AND EDIT AVAIL SET DETAILS
—CLICK ON COLUMN HEADER TO RE-ORDER LIST

GO TO FIG. 5F

INVENTORY FOR ##/##/#### TO ##/##/####

DAY	TIME	PROGRAM	IMM PRE RATE	WEEK OF ##/##	WEEK OF ##/##	WEEK OF ##/##	TOTAL AVAILS
MF	5-6 P	NEWS	$100	18	12	65	288
MF	6-630P	COSBY	$200	24	23	55	434
MF	630-7P	SIMPSONS	$300	12	66	65	258
M	7P	SEINFIELD 1	$400	5	8	6	565
M	730P	SEINFIELD 2	$400	2	5	9	288

FIG.5E

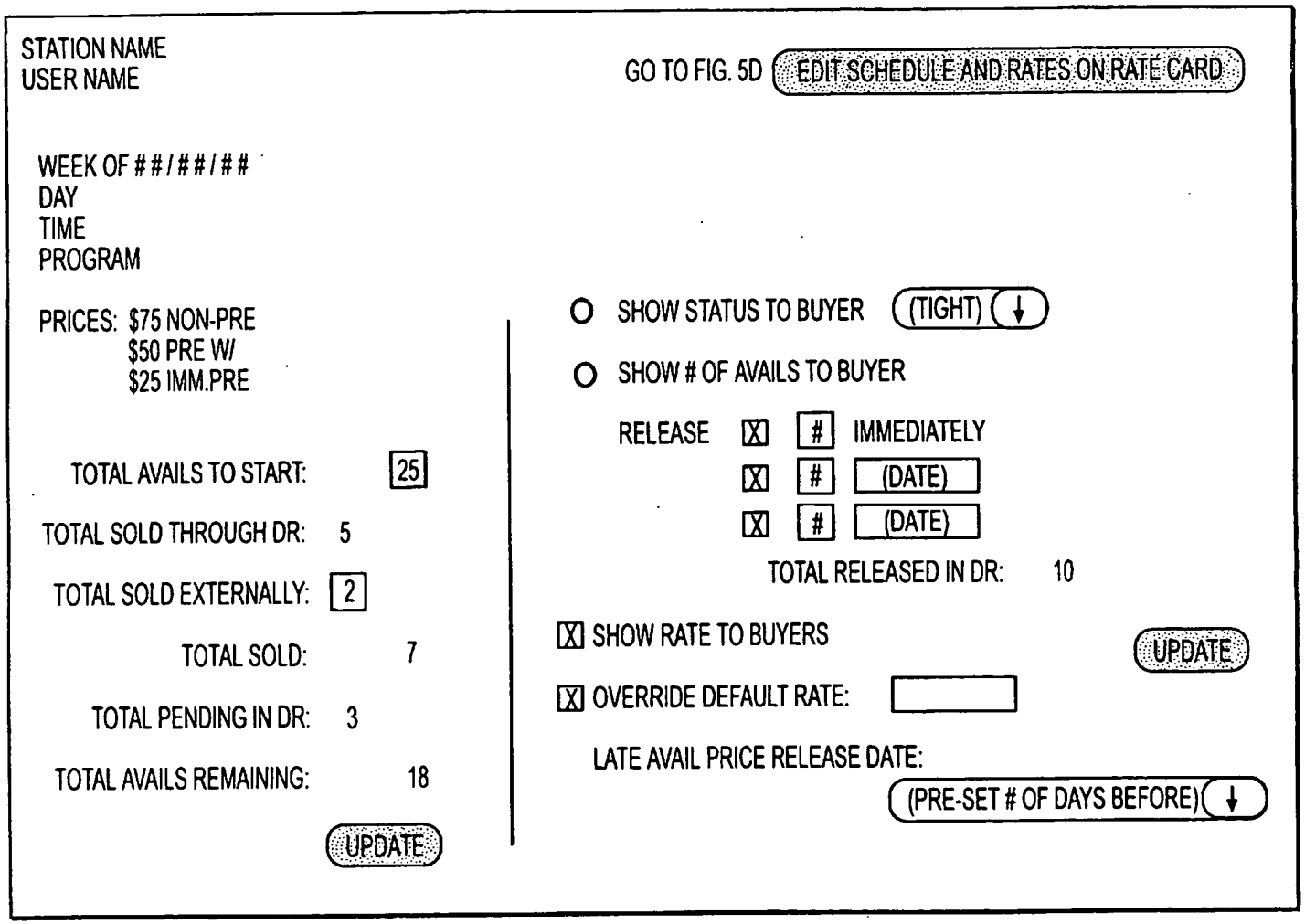

STATION NAME
USER NAME
GO TO FIG. 5D
EDIT SCHEDULE AND RATES ON RATE CARD
WEEK OF ##/##/##
DAY
TIME
PROGRAM
PRICES: $75 NON-PRE
$50 PRE W/
$25 IMM.PRE
TOTAL AVAILS TO START: 25
TOTAL SOLD THROUGH DR: 5
TOTAL SOLD EXTERNALLY: 2
TOTAL SOLD: 7
TOTAL PENDING IN DR: 3
TOTAL AVAILS REMAINING: 18
UPDATE
SHOW STATUS TO BUYER
(TIGHT)
SHOW # OF AVAILS TO BUYER
RELEASE X # IMMEDIATELY
X # (DATE)
X # (DATE)
TOTAL RELEASED IN DR: 10
SHOW RATE TO BUYERS
UPDATE
OVERRIDE DEFAULT RATE:
LATE AVAIL PRICE RELEASE DATE:
(PRE-SET # OF DAYS BEFORE)

FIG. 5F

STATION NAME
USER NAME

—CLICK ON COLUMN HEADER TO RE-ORDER LIST

AGENCY	BUYER	ADVERTISER	PRODUCT	FLIGHT DATES	# OF AVAILS	TOTAL OFFER	BID STATUS	VIEW
GREY	T. SMITH	NABISCO	OREO	##/##/## - ##/##/##	50	$25000	TO SELLER	[X]
GREY	T. SMITH	PEPSI	PEPSI	##/##/## - ##/##/##	10	$7000	AT BUYER	[ ]
SAATCHI & SAATCHI	J. DOE	COCA-COLA	MINUTE MAID	##/##/## - ##/##/##	20	$35000	CONTRACT	[ ]
SAATCHI & SAATCHI	J. DOE	COCA-COLA	COCA-COLA	##/##/## - ##/##/##	25	$50000	HOLD	[ ]
SAATCHI & SAATCHI	J.DOE	COCA-COLA	FRUTOPIA	##/##/## - ##/##/##	7	$12000	HOLD	[ ]

GO TO FIG. 5H (VIEW)

FIG.5G

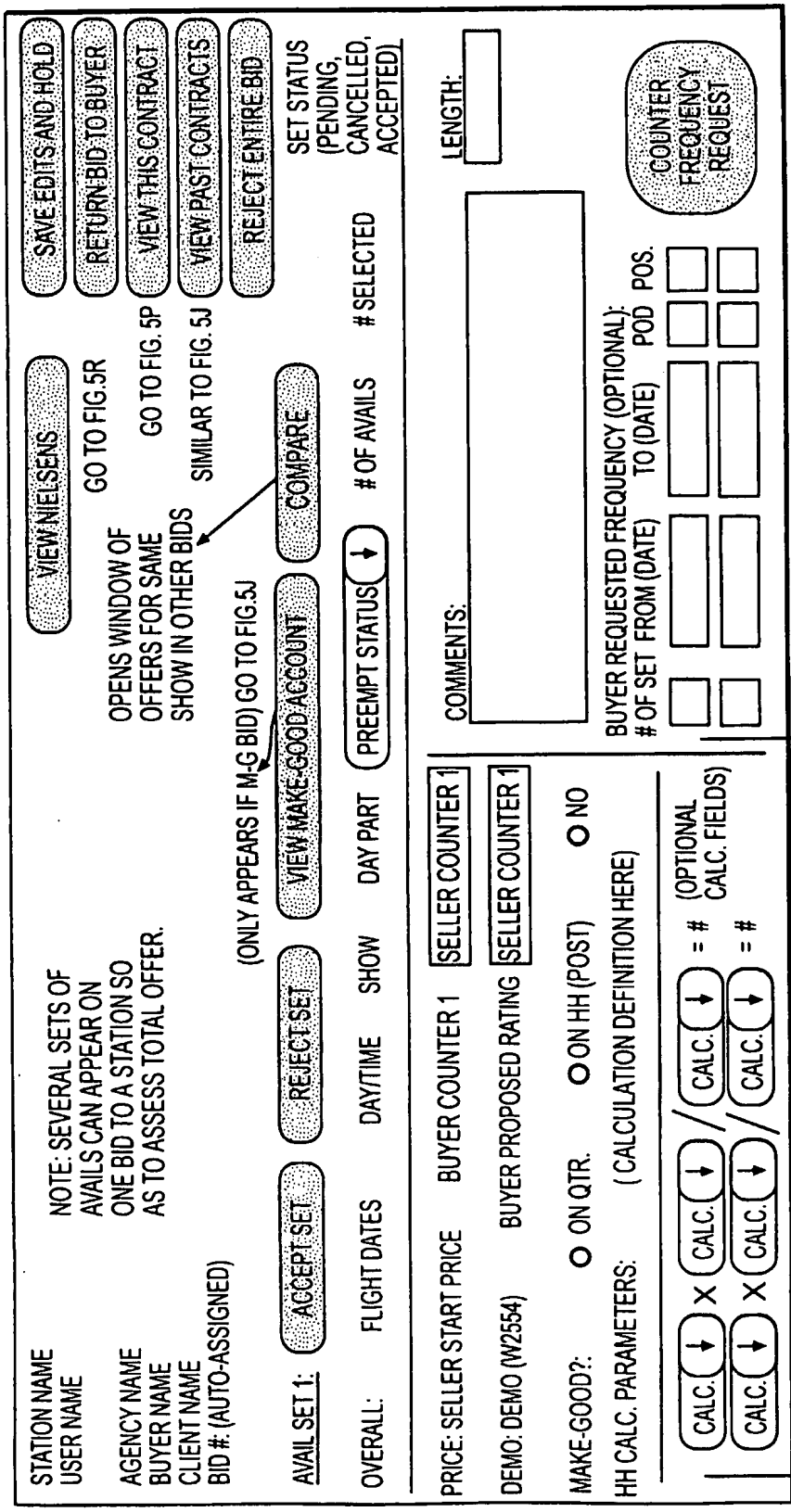

STATION NAME
USER NAME
AGENCY NAME
BUYER NAME
CLIENT NAME
BID #: (AUTO-ASSIGNED)
NOTE: SEVERAL SETS OF AVAILS CAN APPEAR ON ONE BID TO A STATION SO AS TO ASSESS TOTAL OFFER.
VIEW NIELSENS
SAVE EDITS AND HOLD
GO TO FIG.5R
RETURN BID TO BUYER
OPENS WINDOW OF OFFERS FOR SAME SHOW IN OTHER BIDS
GO TO FIG. 5P
VIEW THIS CONTRACT
SIMILAR TO FIG. 5J
VIEW PAST CONTRACTS
(ONLY APPEARS IF M-G BID) GO TO FIG.5J
REJECT ENTIRE BID
AVAIL SET 1:
ACCEPT SET
REJECT SET
VIEW MAKE-GOOD ACCOUNT
COMPARE
SET STATUS (PENDING, CANCELLED, ACCEPTED)
OVERALL:
FLIGHT DATES
DAY/TIME
SHOW
DAY PART
PREEMPT STATUS
OF AVAILS
SELECTED
PRICE: SELLER START PRICE
BUYER COUNTER 1
SELLER COUNTER 1
COMMENTS:
LENGTH:
DEMO: DEMO (W2554)
BUYER PROPOSED RATING
SELLER COUNTER 1
BUYER REQUESTED FREQUENCY (OPTIONAL):
OF SET
FROM (DATE)
TO (DATE)
POD
POS.
COUNTER FREQUENCY REQUEST
MAKE-GOOD?:
ON QTR.
ON HH (POST)
NO
HH CALC. PARAMETERS:
(CALCULATION DEFINITION HERE)
CALC.
CALC.
CALC.
CALC.
CALC.
CALC.
CALC.
CALC.
(OPTIONAL CALC. FIELDS)

FIG.5H

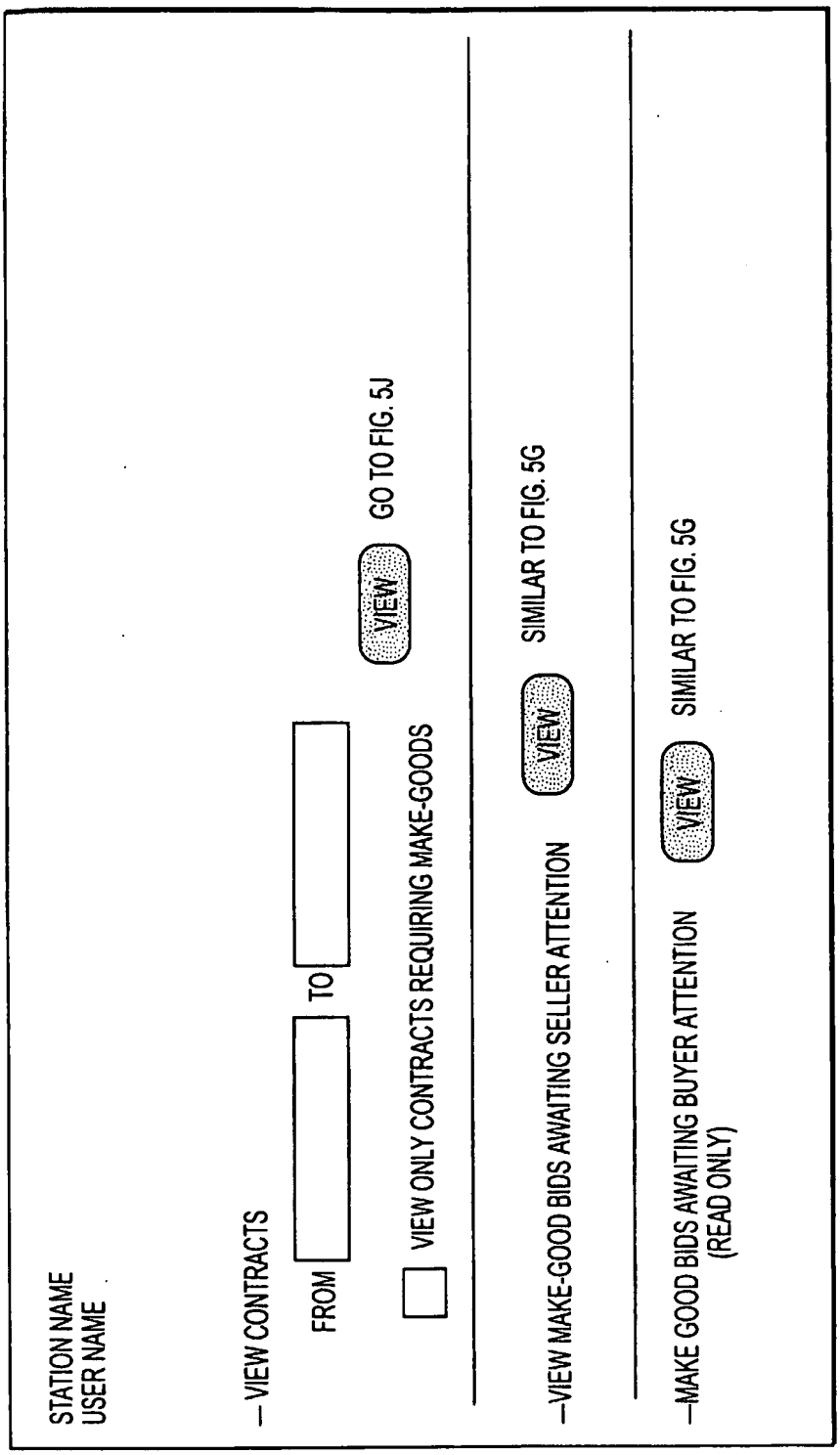

STATION NAME
USER NAME
– VIEW CONTRACTS
FROM
TO
VIEW
GO TO FIG. 5J
VIEW ONLY CONTRACTS REQUIRING MAKE-GOODS
–VIEW MAKE-GOOD BIDS AWAITING SELLER ATTENTION
VIEW
SIMILAR TO FIG. 5G
–MAKE GOOD BIDS AWAITING BUYER ATTENTION
(READ ONLY)
VIEW
SIMILAR TO FIG. 5G

FIG. 5I

STATION NAME
USER NAME

—CLICK ON CONTRACT # TO VIEW AND EDIT DETAILS
—CLICK ON COLUMN HEADER TO RE-ORDER LIST

MAKE-GOODS ACCUMULATED FROM ##/##/#### TO ##/##/####

					MAKE-GOOD STATUS		
CONTRACT #	DATE	AGENCY	ADVERTISER	PRODUCT	PTS.	CREDIT	SHARE
44759-9	4/5/98	GREY	NABISCO	OREO		X	X
55456-5	7/5/98	GREY	PEPSI	PEPSI		X	
66458-9	6/8/98	SAATCHI & SAATCHI	COCA-COLA	MINUTE MAID		X	
91963-4	4/8/98	SAATCHI & SAATCHI	COCA-COLA	COCA-COLA	X		
11758-4	3/25/98	SAATCHI & SAATCHI	COCA-COLA	FRUTOPIA	X	X	

GO TO FIG. 5K

FIG.5J

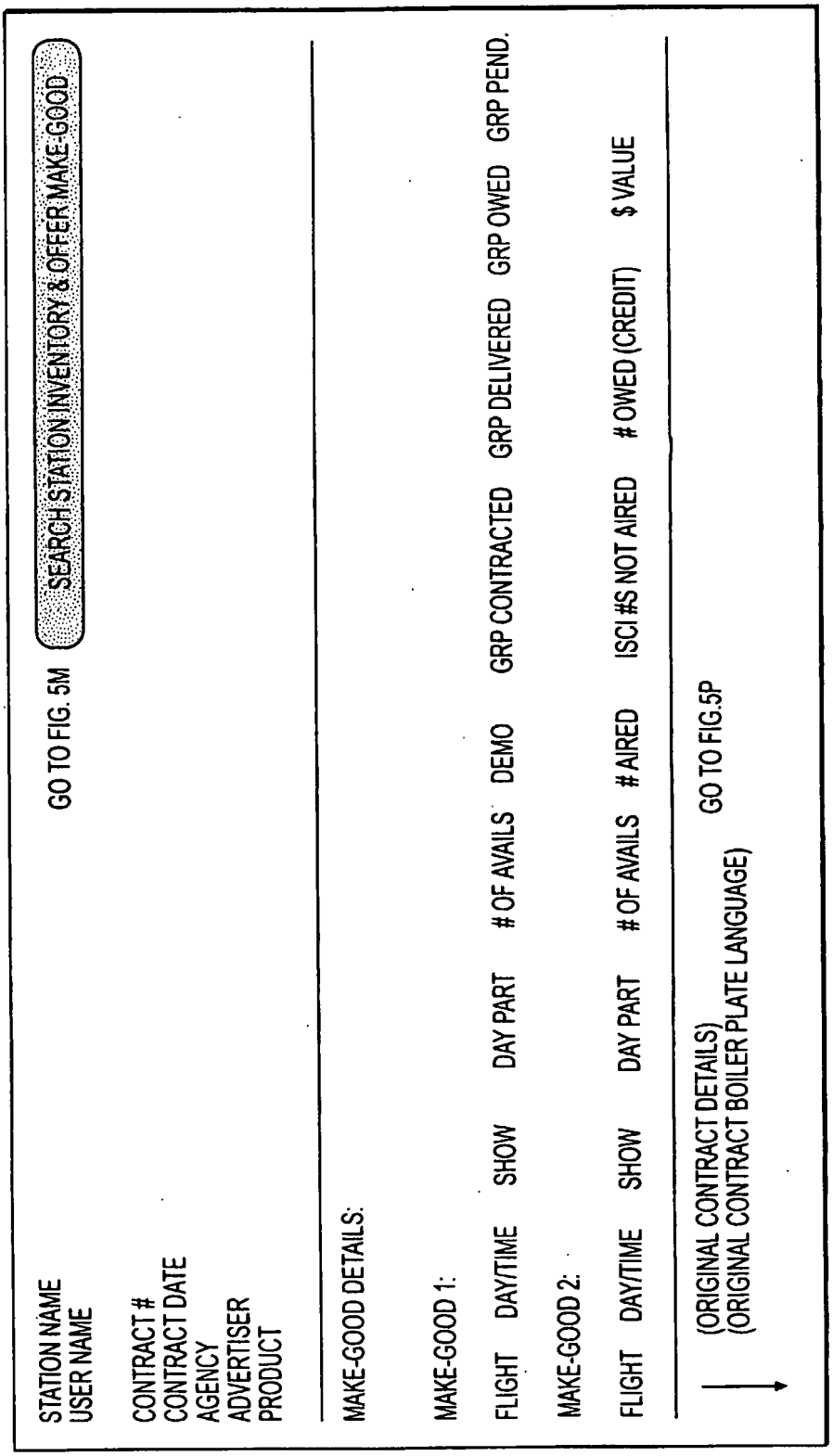

STATION NAME
USER NAME
GO TO FIG. 5M
SEARCH STATION INVENTORY & OFFER MAKE-GOOD
CONTRACT #
CONTRACT DATE
AGENCY
ADVERTISER
PRODUCT
MAKE-GOOD DETAILS:
MAKE-GOOD 1:
FLIGHT DAY/TIME SHOW DAY PART # OF AVAILS DEMO GRP CONTRACTED GRP DELIVERED GRP OWED GRP PEND.
MAKE-GOOD 2:
FLIGHT DAY/TIME SHOW DAY PART # OF AVAILS # AIRED ISCI #S NOT AIRED # OWED (CREDIT) $ VALUE
(ORIGINAL CONTRACT DETAILS)
(ORIGINAL CONTRACT BOILER PLATE LANGUAGE)
GO TO FIG.5P

FIG. 5K

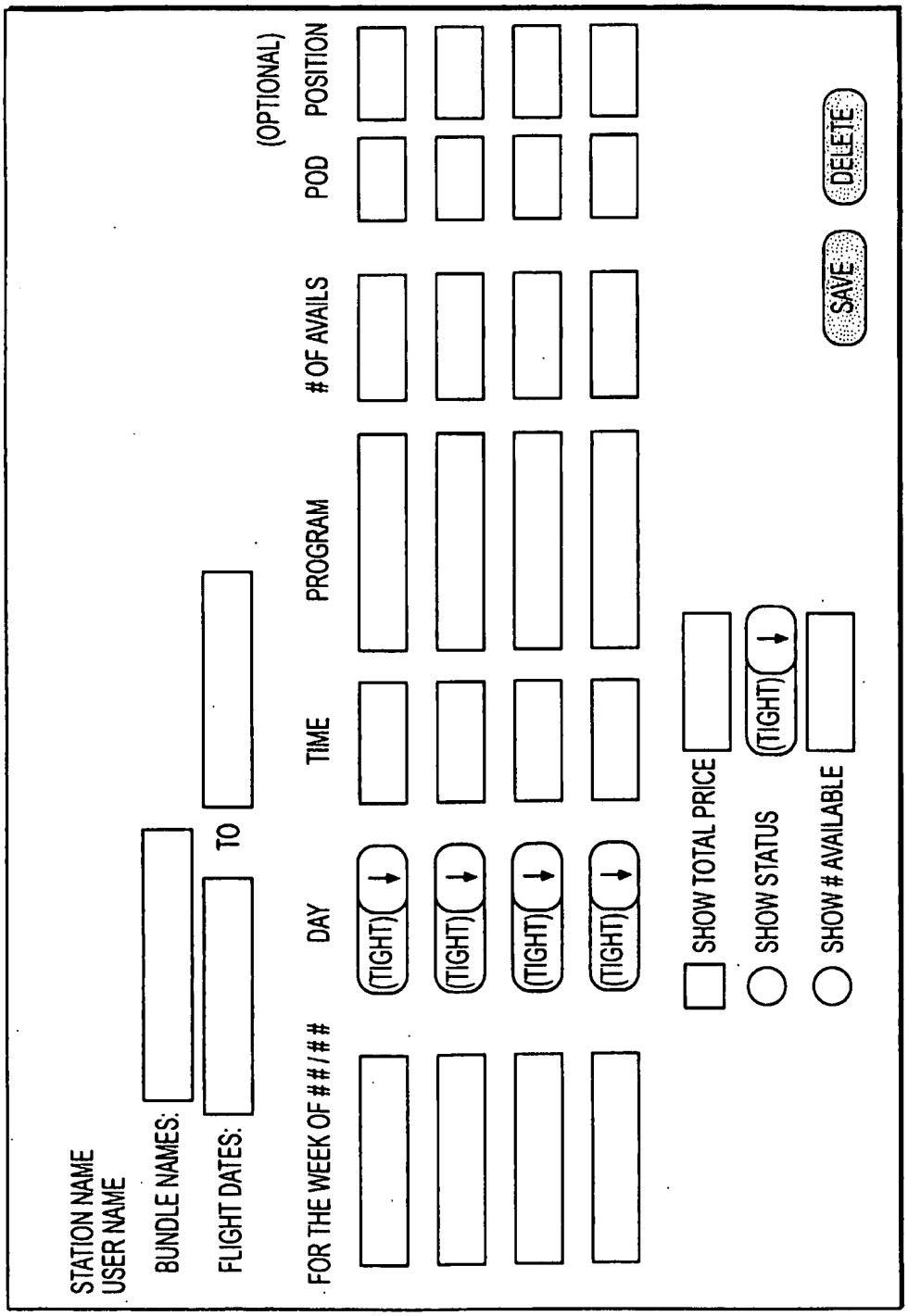

STATION NAME
USER NAME
BUNDLE NAMES:
FLIGHT DATES:
TO
FOR THE WEEK OF ##/##
DAY
TIME
PROGRAM
OF AVAILS
POD
(OPTIONAL)
POSITION
(TIGHT)
(TIGHT)
(TIGHT)
(TIGHT)
SHOW TOTAL PRICE
SHOW STATUS
(TIGHT)
SHOW # AVAILABLE
SAVE
DELETE

FIG. 5L

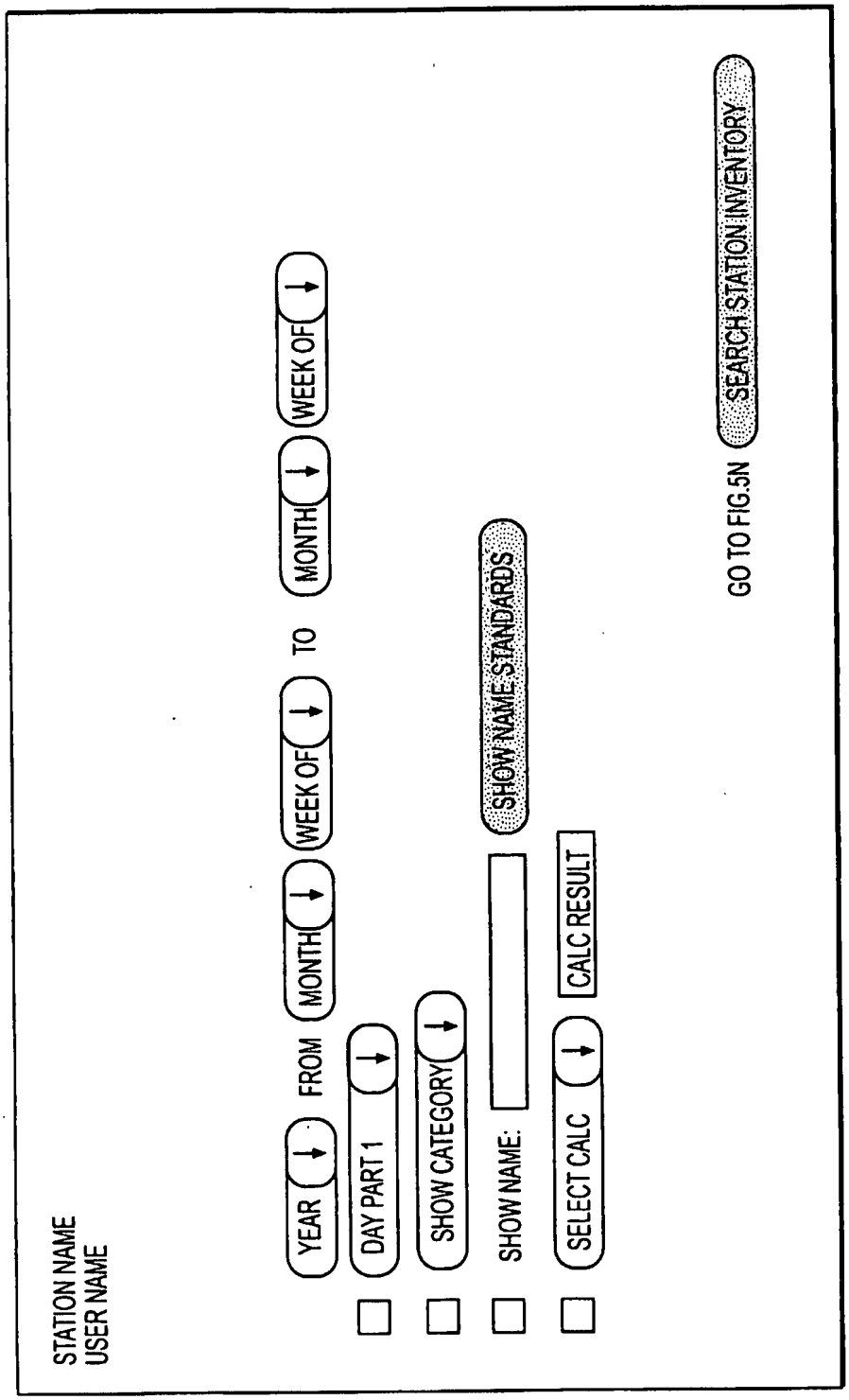

STATION NAME
USER NAME
YEAR
FROM
MONTH
WEEK OF
TO
MONTH
WEEK OF
DAY PART 1
SHOW CATEGORY
SHOW NAME:
SHOW NAME STANDARDS
SELECT CALC
CALC RESULT
GO TO FIG.5N
SEARCH STATION INVENTORY

FIG.5M

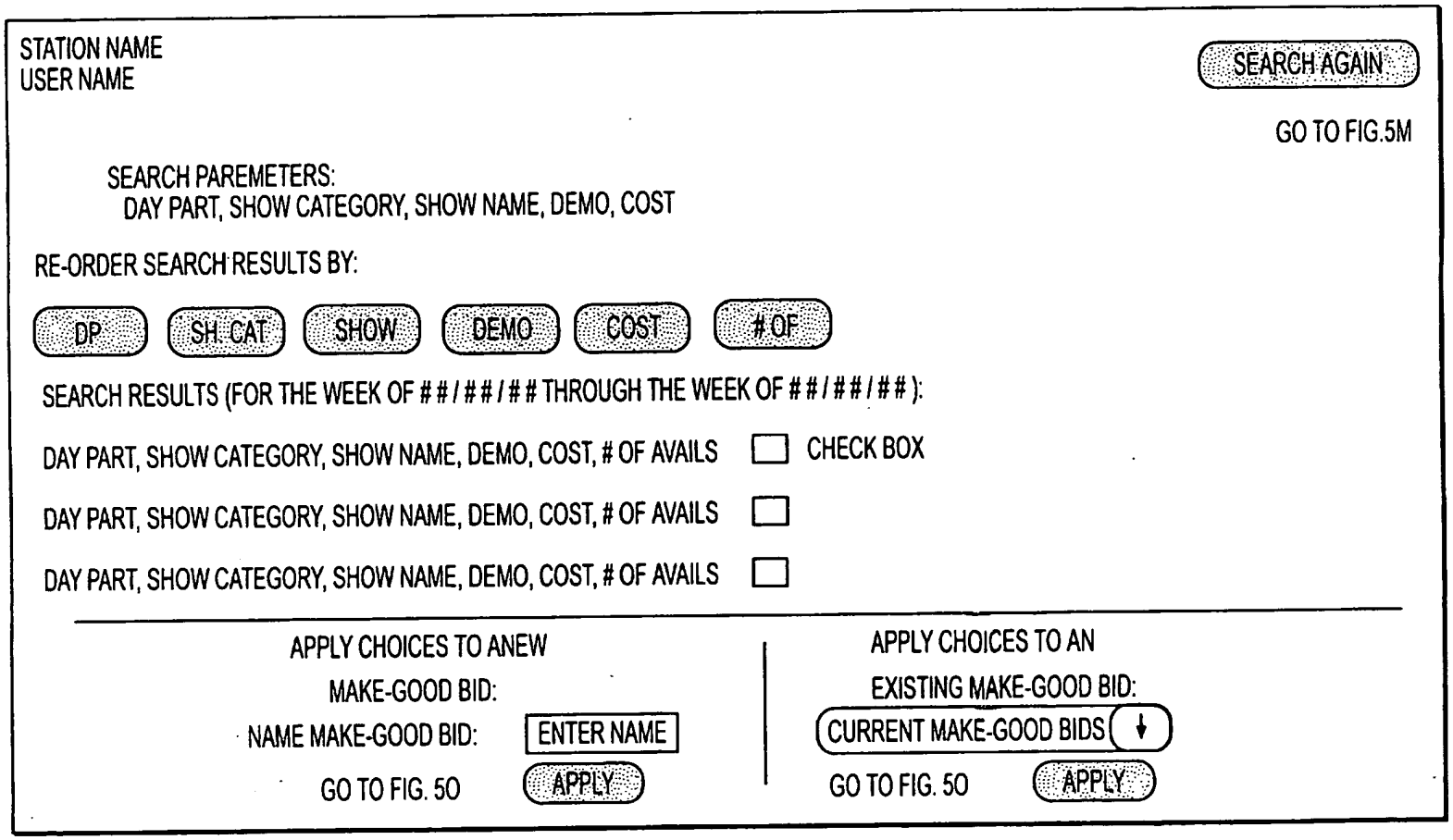

STATION NAME
USER NAME
SEARCH AGAIN
GO TO FIG.5M
SEARCH PAREMETERS:
DAY PART, SHOW CATEGORY, SHOW NAME, DEMO, COST
RE-ORDER SEARCH RESULTS BY:
DP
SH. CAT
SHOW
DEMO
COST
OF
SEARCH RESULTS (FOR THE WEEK OF ##/##/## THROUGH THE WEEK OF ##/##/##):
DAY PART, SHOW CATEGORY, SHOW NAME, DEMO, COST, # OF AVAILS
CHECK BOX
DAY PART, SHOW CATEGORY, SHOW NAME, DEMO, COST, # OF AVAILS
DAY PART, SHOW CATEGORY, SHOW NAME, DEMO, COST, # OF AVAILS
APPLY CHOICES TO ANEW MAKE-GOOD BID:
NAME MAKE-GOOD BID:
ENTER NAME
GO TO FIG. 50
APPLY
APPLY CHOICES TO AN EXISTING MAKE-GOOD BID:
CURRENT MAKE-GOOD BIDS
GO TO FIG. 50
APPLY

FIG.5N

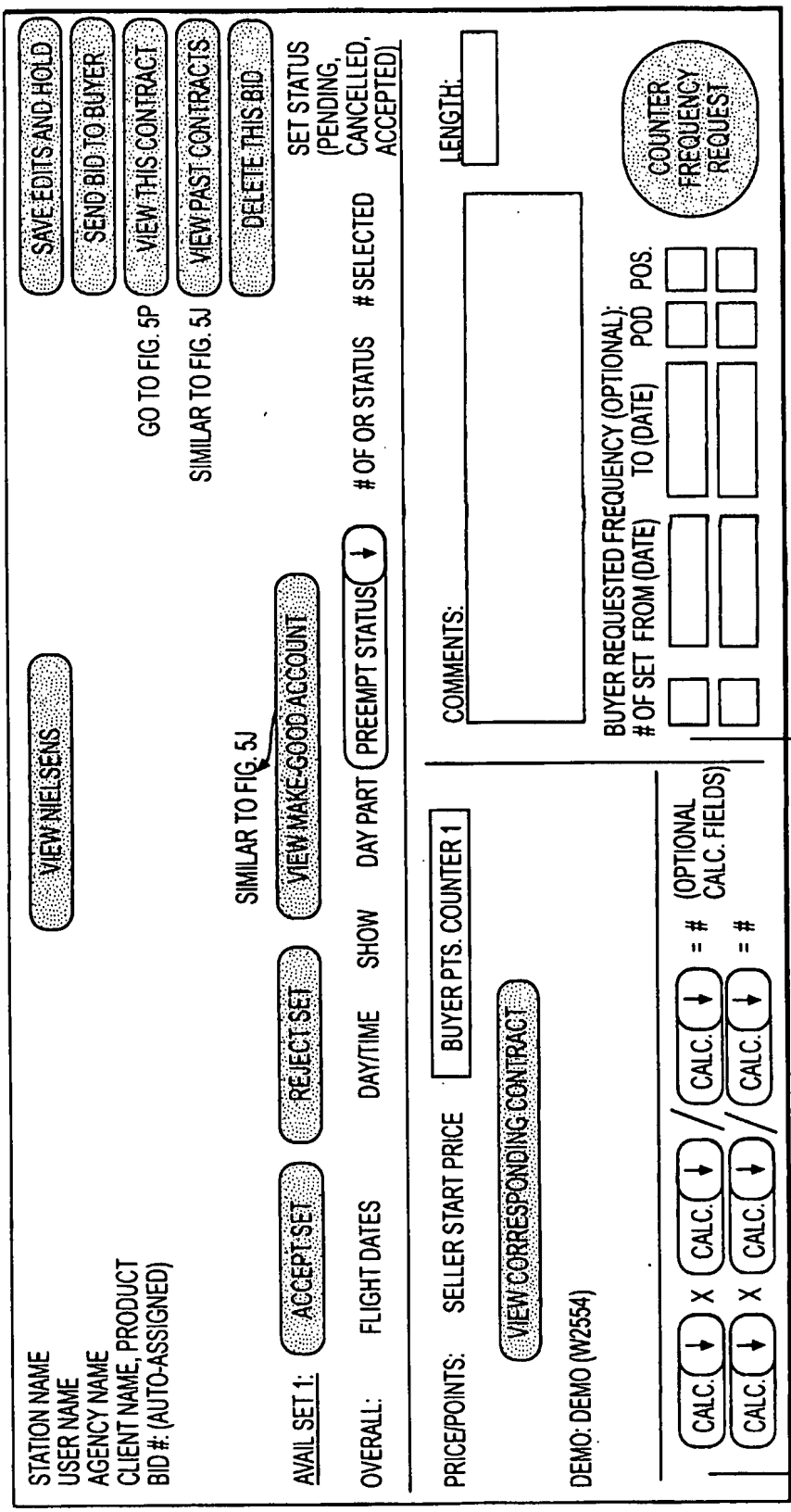

STATION NAME
USER NAME
AGENCY NAME
CLIENT NAME, PRODUCT
BID #: (AUTO-ASSIGNED)
VIEW NIELSENS
SAVE EDITS AND HOLD
SEND BID TO BUYER
VIEW THIS CONTRACT
VIEW PAST CONTRACTS
DELETE THIS BID
GO TO FIG. 5P
SIMILAR TO FIG. 5J
SIMILAR TO FIG. 5J
AVAIL SET 1:
ACCEPT SET
REJECT SET
VIEW MAKE-GOOD ACCOUNT
SET STATUS (PENDING, CANCELLED, ACCEPTED)
OVERALL:
FLIGHT DATES
DAY/TIME
SHOW
DAY PART
PREEMPT STATUS
OF OR STATUS
SELECTED
PRICE/POINTS:
SELLER START PRICE
BUYER PTS. COUNTER 1
COMMENTS:
LENGTH:
VIEW CORRESPONDING CONTRACT
DEMO: DEMO (W2554)
BUYER REQUESTED FREQUENCY (OPTIONAL):
OF SET
FROM (DATE)
TO (DATE)
POD
POS.
COUNTER FREQUENCY REQUEST
CALC.
X
CALC.
/
CALC.
= #
(OPTIONAL CALC. FIELDS)
CALC.
X
CALC.
/
CALC.
= #

FIG.5O

ONLY IF CONTRACT IS COMPLETED

CONTACT #
CONTRACT DATE

BUYER:
AGENCY NAME
BUYER NAME
ADVERTISER
PRODUCT

SELLER:
STATION NAME
MARKET
SELLER NAME

OPEN CONTRACT TO RE-WORK

OPEN SUPPORTING BID

FLIGHT DATES	DAY/TIME	PROGRAM	# OF SPOTS	EFFECTIVE DATES	LENGTH	M-G TYPE	DEMO/RTG	RATE	CLASS
AVAIL SET 1: VIEW FREQ. DETAILS GO TO FIG.5Q									
6/3/98-6/26/98	MF	AM NEWS	2	6/3-6/5	30	QTR.	W2554/1	300	PRE
6/3/98-6/26/98	MF	AM NEWS	2	6/24-6/25	30	QTR.	W2554/1	300	PRE
AVAIL SET 2: VIEW FREQ. DETAILS									
6/3/98-6/26/98	MF	SPIN CITY	2	6/3	30	QTR.	W2554/5.5	4000	PRE
AVAIL SET 3: VIEW FREQ. DETAILS									
6/3/98-6/26/98	MF	DARMA AND GREG	2	6/24	30	QTR.	W2554/7	4500	PRE
TOTAL:			9					9100	

BUYER AGREE SEND TO SELLER

FIG.5P

CONTRACT #
CONTRACT DATE

GO TO FIG. 5P | BACK TO FIRST PAGE OF CONTRACT

FREQUENCY DETAILS

AVAIL SET 1:

FLIGHT DATES	DAY/TIME	PROGRAM	# OF SPOTS	EFFECTIVE DATES	LENGTH	M-G TYPE	DEMO/RTG	RATE	CLASS
6/3/98-6/26/98	MF	AM NEWS	2	6/3-6/5	30	QTR.	W2554/1	300	PRE
6/3/98-6/26/98	MF	AM NEWS	2	6/24-6/25	30	QTR.	W2554/1	300	PRE

# OF SET	FROM (DATE)	TO (DATE)	POD	POS.
1	6/3	6/3	1	ANY
1	6/5	6/5	1	ANY
2	6/24	6/25	ANY	ANY

BUYER COMMENTS AND INSTRUCTIONS:

FIG.5Q

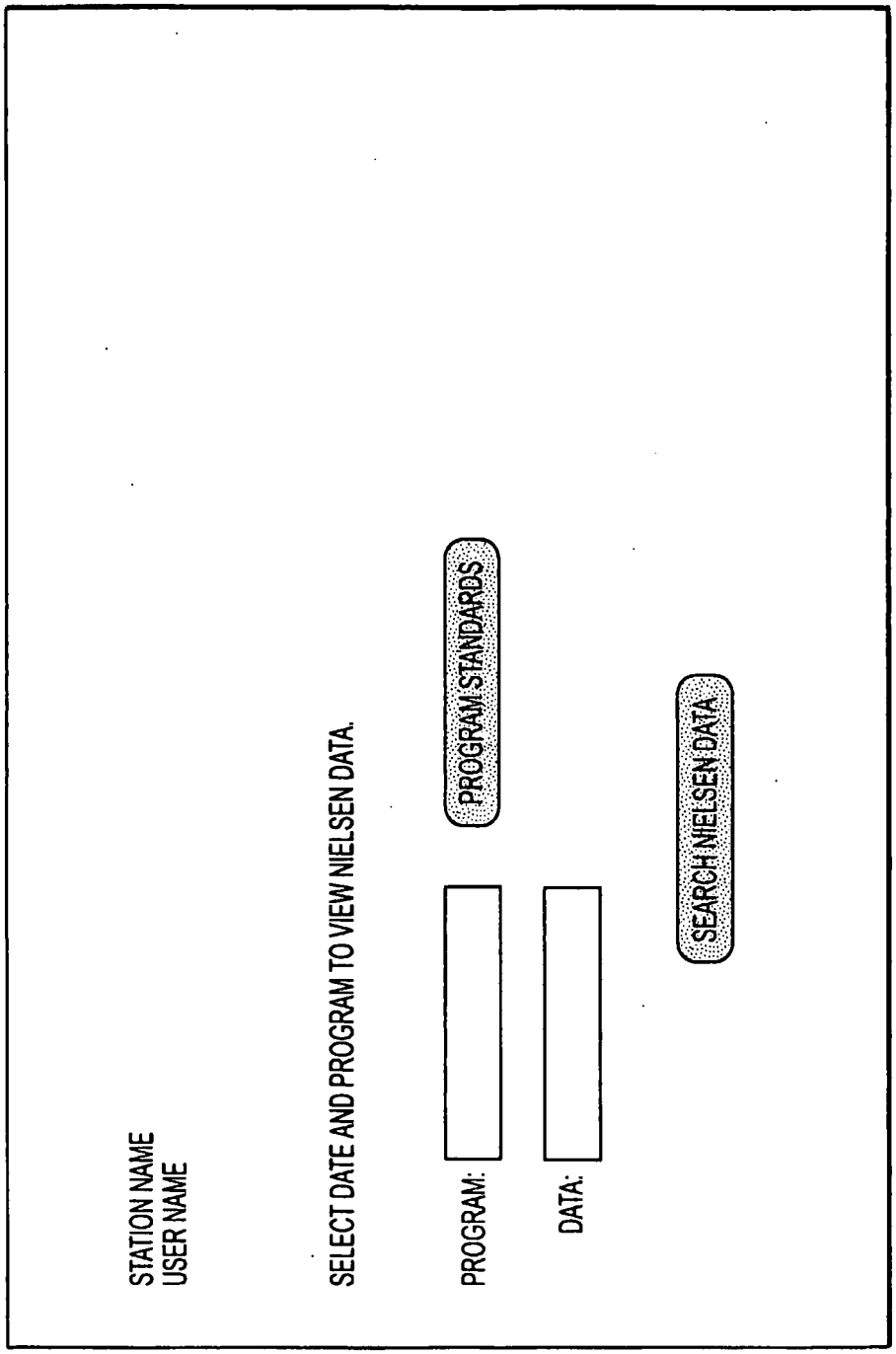

STATION NAME
USER NAME
SELECT DATE AND PROGRAM TO VIEW NIELSEN DATA.
PROGRAM:
PROGRAM STANDARDS
DATA:
SEARCH NIELSEN DATA

FIG. 5R

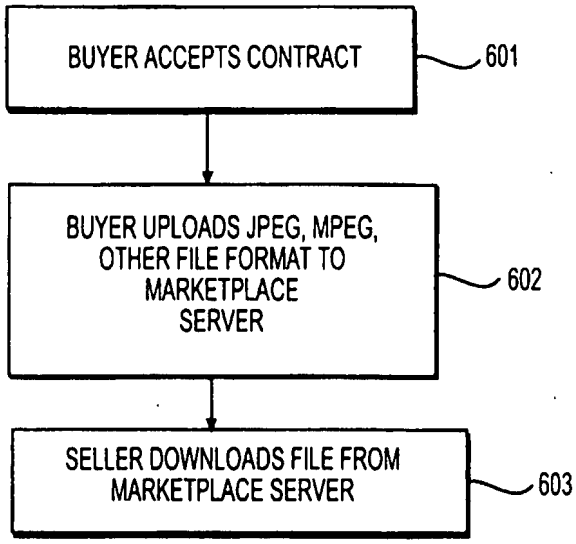

BUYER ACCEPTS CONTRACT
601
BUYER UPLOADS JPEG, MPEG, OTHER FILE FORMAT TO MARKETPLACE SERVER
602
SELLER DOWNLOADS FILE FROM MARKETPLACE SERVER
603

FIG.6

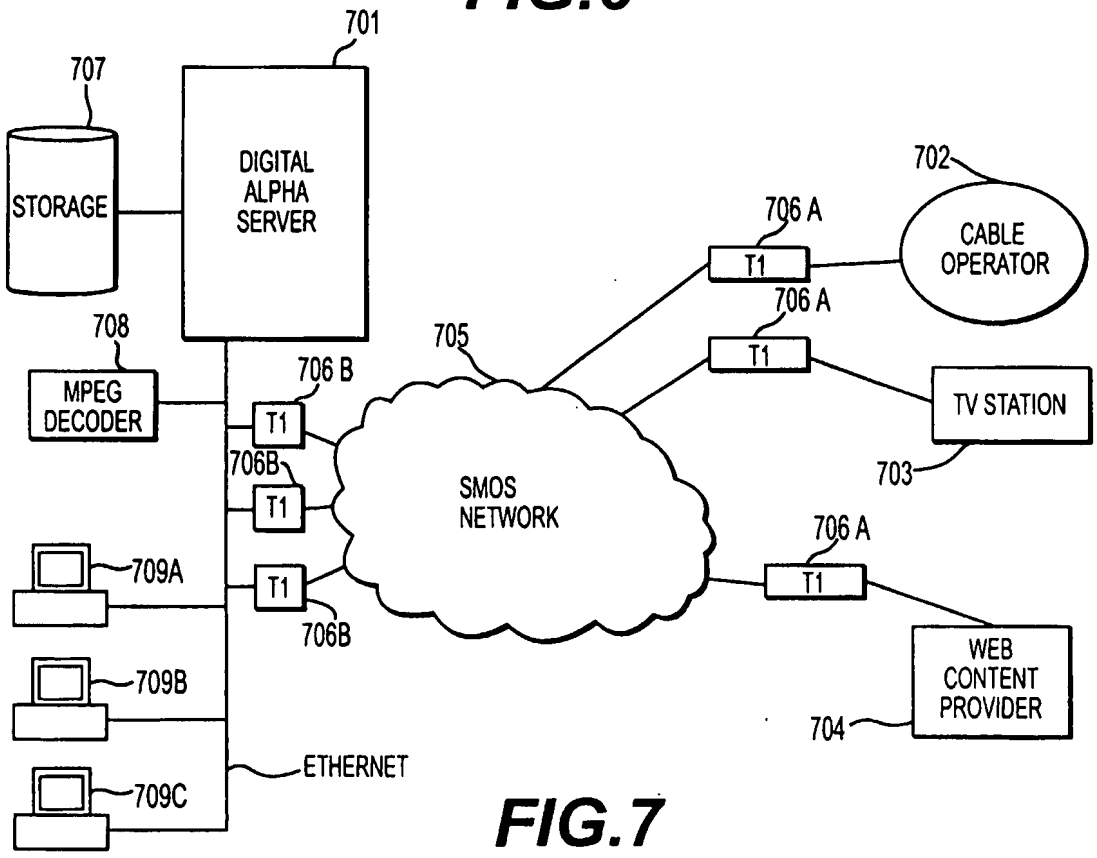

701
707
STORAGE
DIGITAL ALPHA SERVER
702
CABLE OPERATOR
706 A
T1
706 A
T1
708
MPEG DECODER
705
706 B
T1
706B
T1
TV STATION
703
SMOS NETWORK
706 A
T1
709A
T1
706B
709B
WEB CONTENT PROVIDER
704
ETHERNET
709C

FIG.7

FIG. 8 - HARDWARE/SOFTWARE OVERVIEW

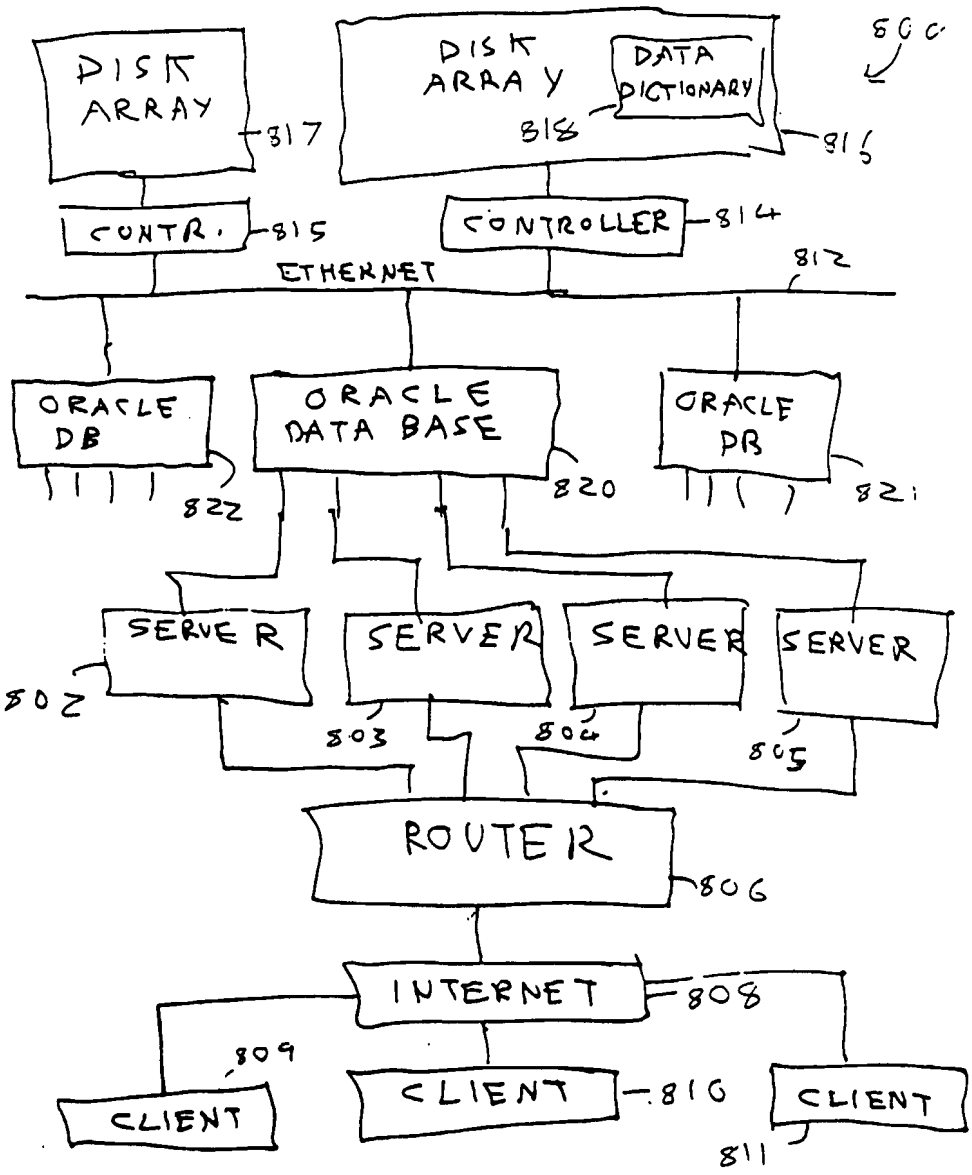
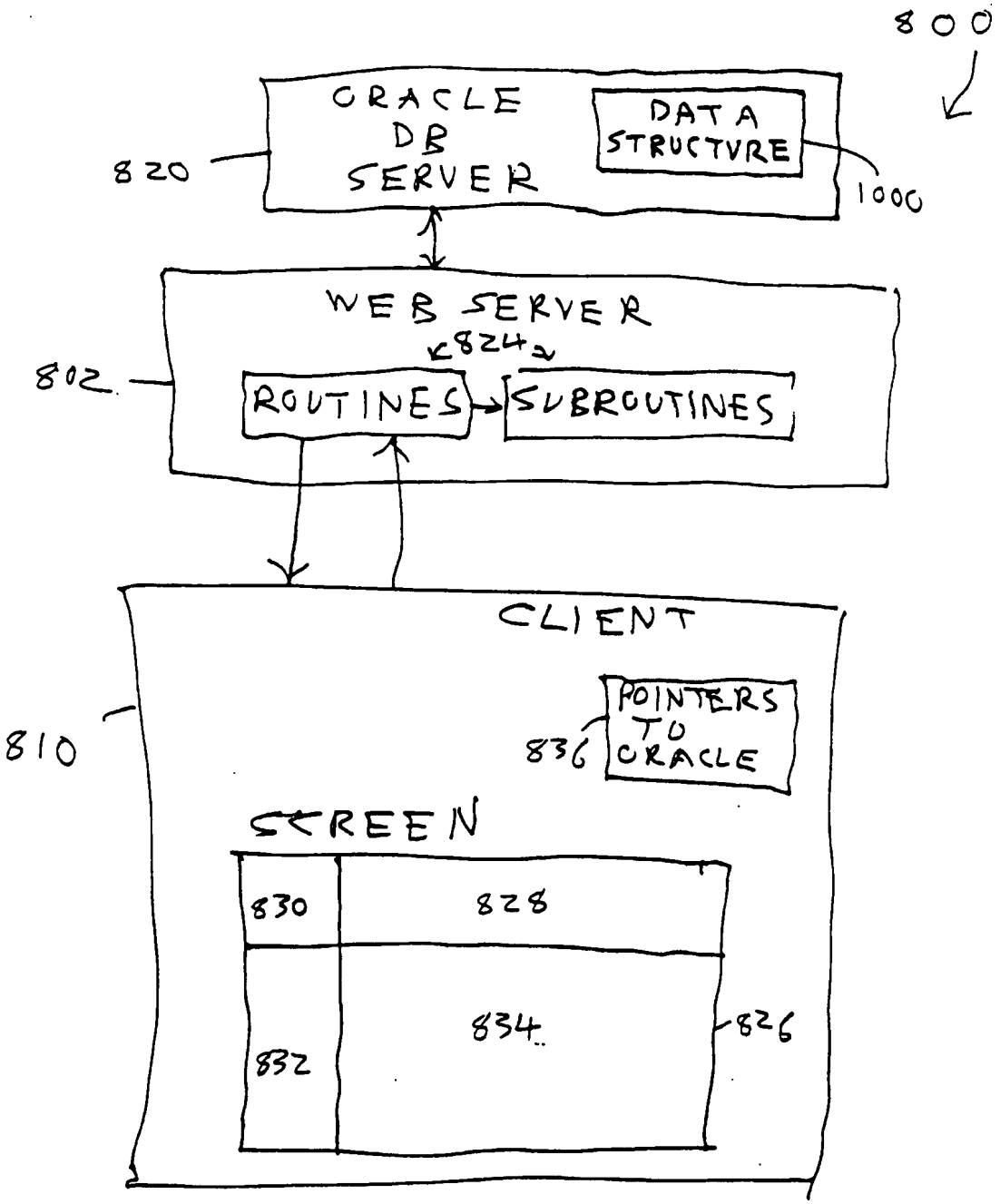


FIG. 9 SYSTEM OVERVIEW



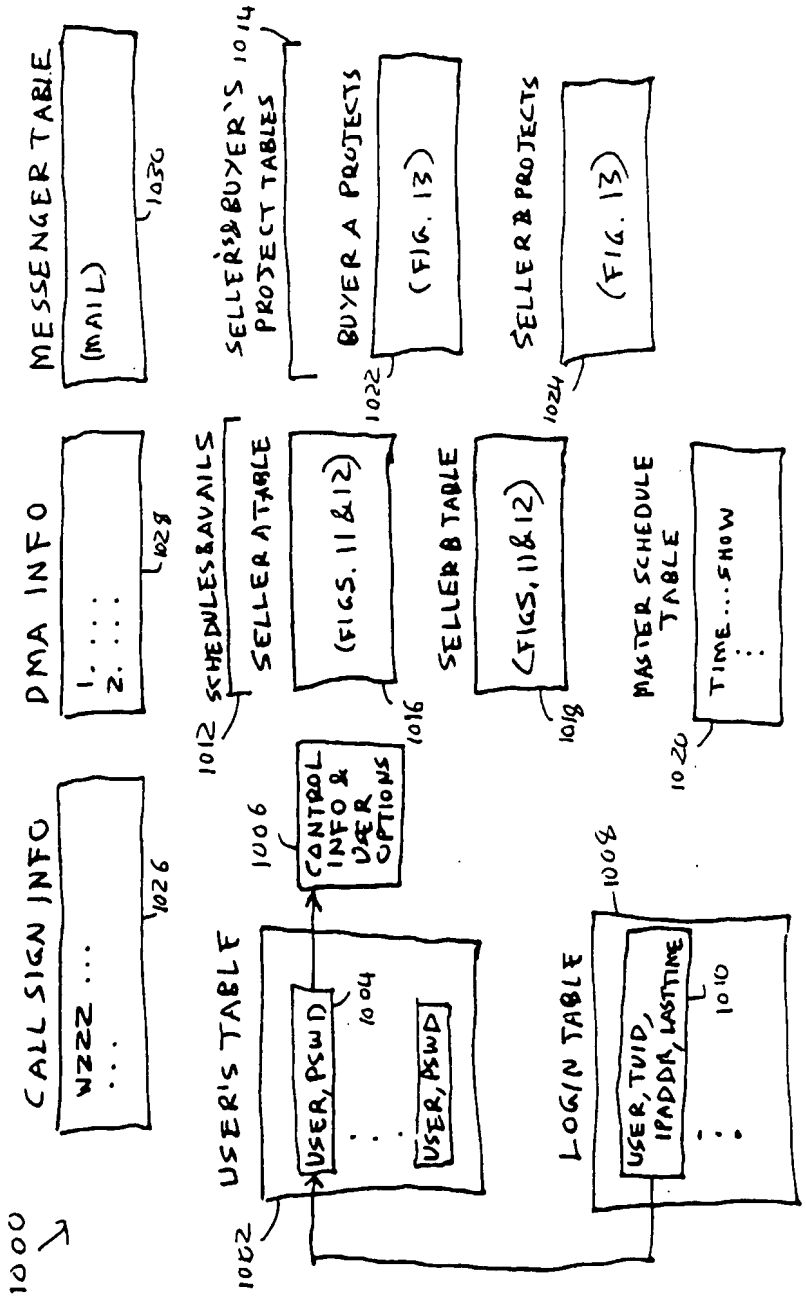


FIG. 10 DATA STRUCTURES
1000
CALL SIGN INFO
WZZZ ...
1026
DMA INFO
1. ....
2. ....
1028
MESSENGER TABLE
(MAIL)
1030
SELLER'S & BUYER'S PROJECT TABLES
1014
BUYER A PROJECTS
(FIG. 13)
1022
SELLER B PROJECTS
(FIG. 13)
1024
USER'S TABLE
USER, PSWD
USER, PSWD
1004
1002
CONTROL INFO & USER OPTIONS
1006
SCHEDULES & AVAILS
1012
SELLER A TABLE
(FIGS. 11 & 12)
1016
SELLER B TABLE
(FIGS. 11 & 12)
1018
MASTER SCHEDULE TABLE
TIME ... SHOW
1020
LOGIN TABLE
USER, TUID, IPADDR, LASTTIME
1010
1008

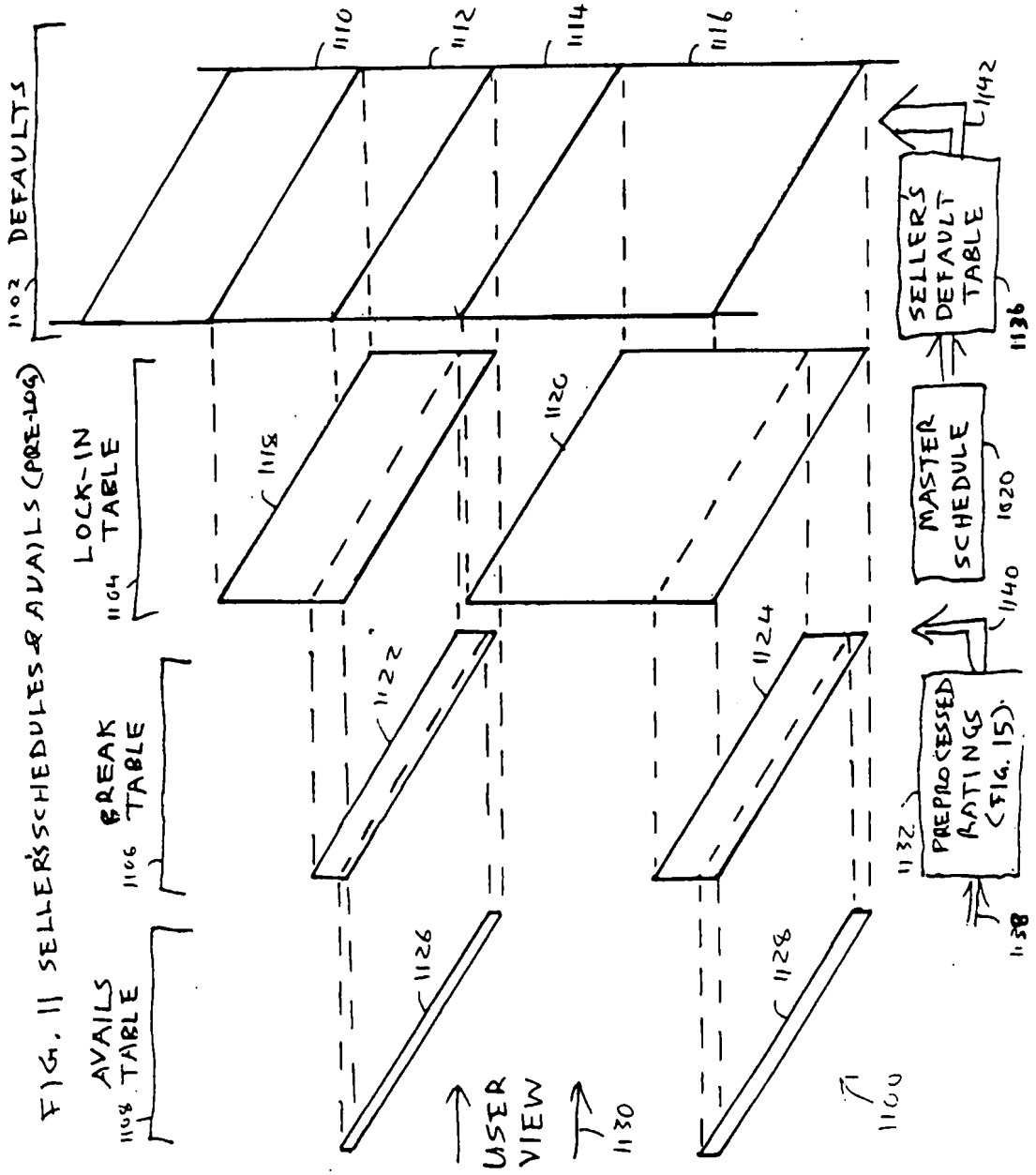


FIG. 11 SELLER'S SCHEDULES & AVAILS (PRE-LOG)
1102 DEFAULTS
1110
1112
1114
1116
1142
SELLER'S DEFAULT TABLE
1136
LOCK-IN TABLE
1104
1118
1120
MASTER SCHEDULE
1020
1140
BREAK TABLE
1106
1122
1124
PREPROCESSED RATINGS (FIG. 15)
1132
AVAILS TABLE
1108
1126
1128
1138
USER VIEW
1130
1100

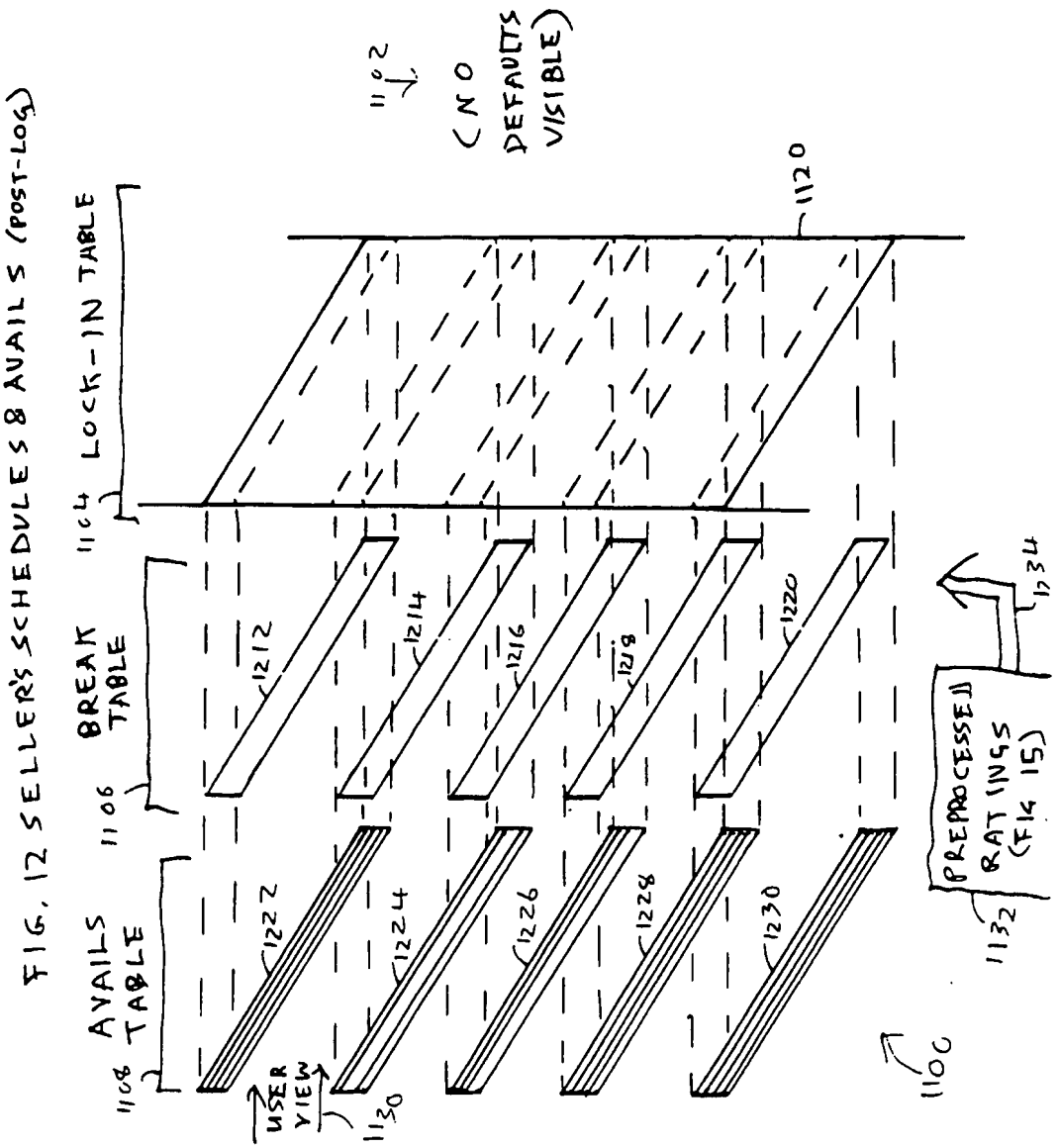


FIG. 12 SELLER'S SCHEDULES & AVAILS (POST-LOG)
AVAILS TABLE
1108
BREAK TABLE
1106
LOCK-IN TABLE
1104
1102
(NO DEFAULTS VISIBLE)
1120
1212
1214
1216
1218
1220
1222
1224
1226
1228
1230
USER VIEW
1130
PREPROCESSED RATINGS (FIG 15)
1132
1134
1100

FIG. 13 PROJECT TABLE 1014

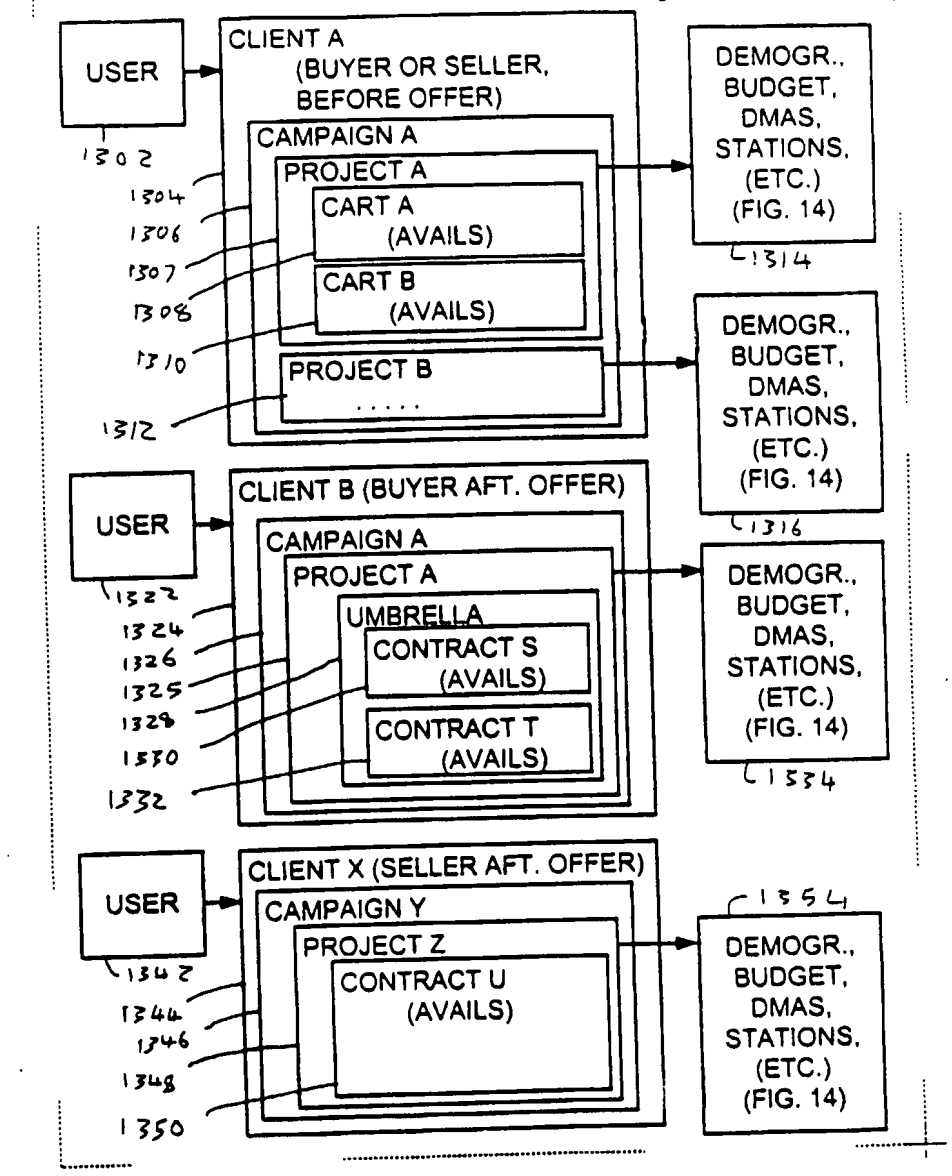


FIG. 14 PROJECT PARAMETERS

STRUCTURE ~1314	FOR EXAMPLE:
REFERENCE RECORD	NBA PLAYOFFS
DEMOGRAPHICS	PRIMARY: MEN 18 - 30 SECONDARY: MEN 50 - 60 SECONDARY: MEN 13 - 18
FLIGHT DATES	MAY 1, 1999 - JUNE 1, 1999
DMA'S, STATIONS	WASHINGTON - WJLY NEW YORK - WTTI NEW YORK - WNBC LOS ANGELES - KNBC
ACCEPTABLE DROPOUTS	1 - 3 P.M. ONLY
LENGTH	60 SECOND SPOTS
MEDIA TYPE	TELEVISION SPOTS (OR BILLBOARD; OR INTERNET)
BUDGETING	(OVERALL, OR PER DMA)

FIG. 15 PREPROCESSED RATINGS

STRUCTURE ~1152	FOR EXAMPLE:
TIME STAMP	6:15 P.M. OCTOBER 17
OVERALL RATING	1.1
DEMOGR. RATINGS	M 18 - 50 1.1 W 18 - 50 0.9 (ETC.)
STATION	WTTG
RELATIONS	(PRIMARY KEY OF LOCK-IN OR DEFAULT SHOW THAT AIRED DURING THAT TIME)

FIG. 16 USER HIERARCHY

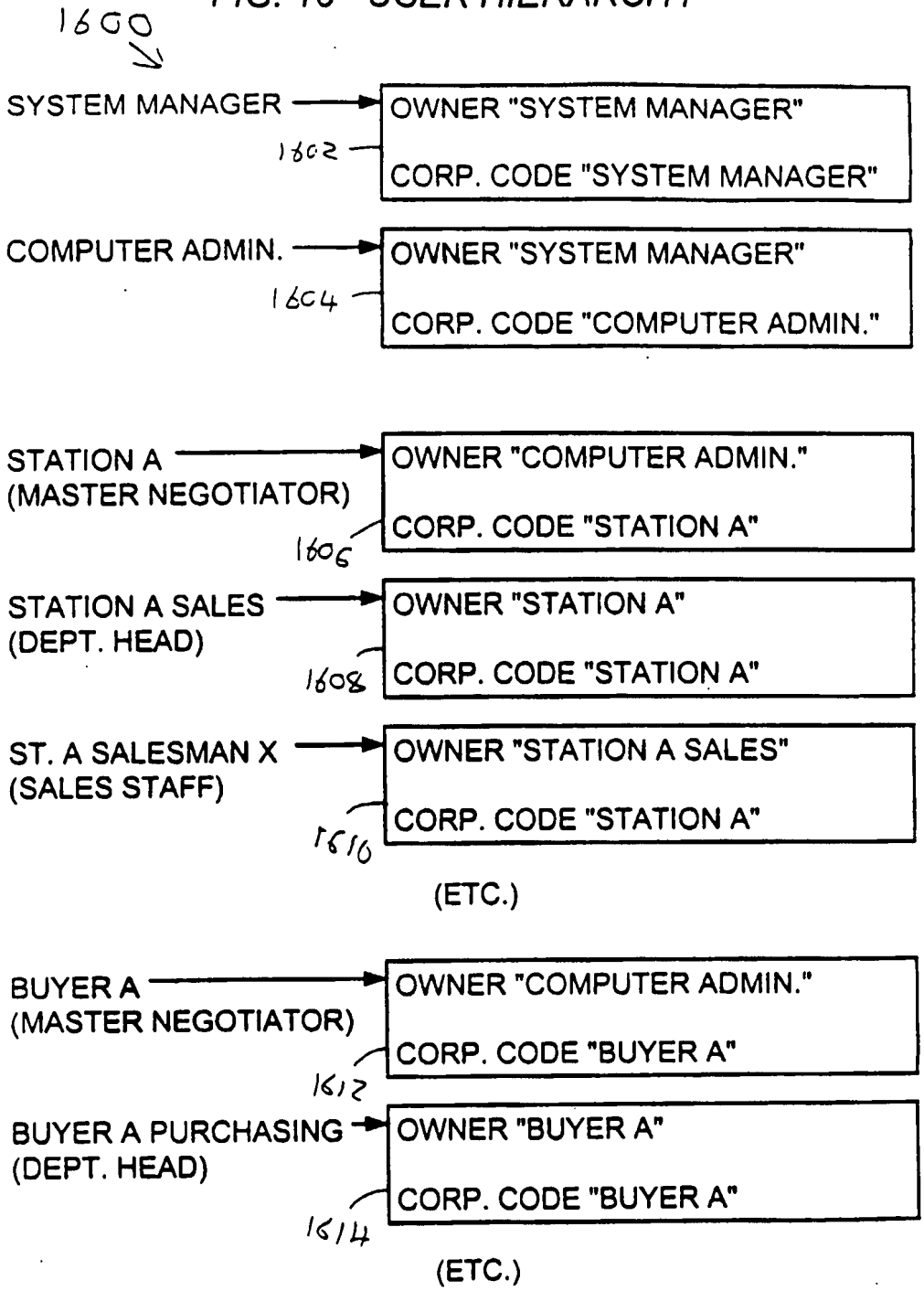


FIG. 17 PROGRAM SYSTEM

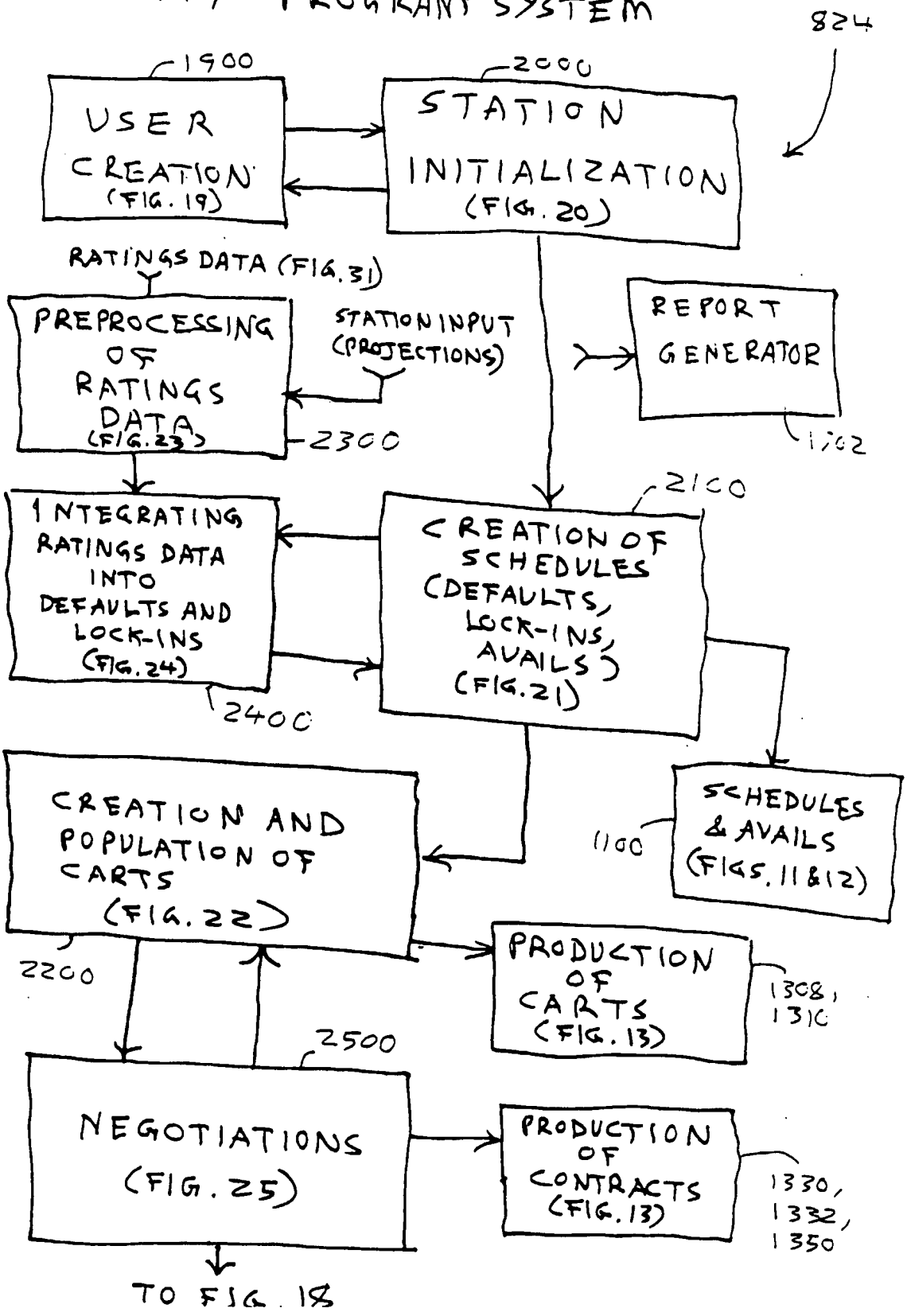


FIG. 18 PROGRAM SYSTEM (CONTD.)

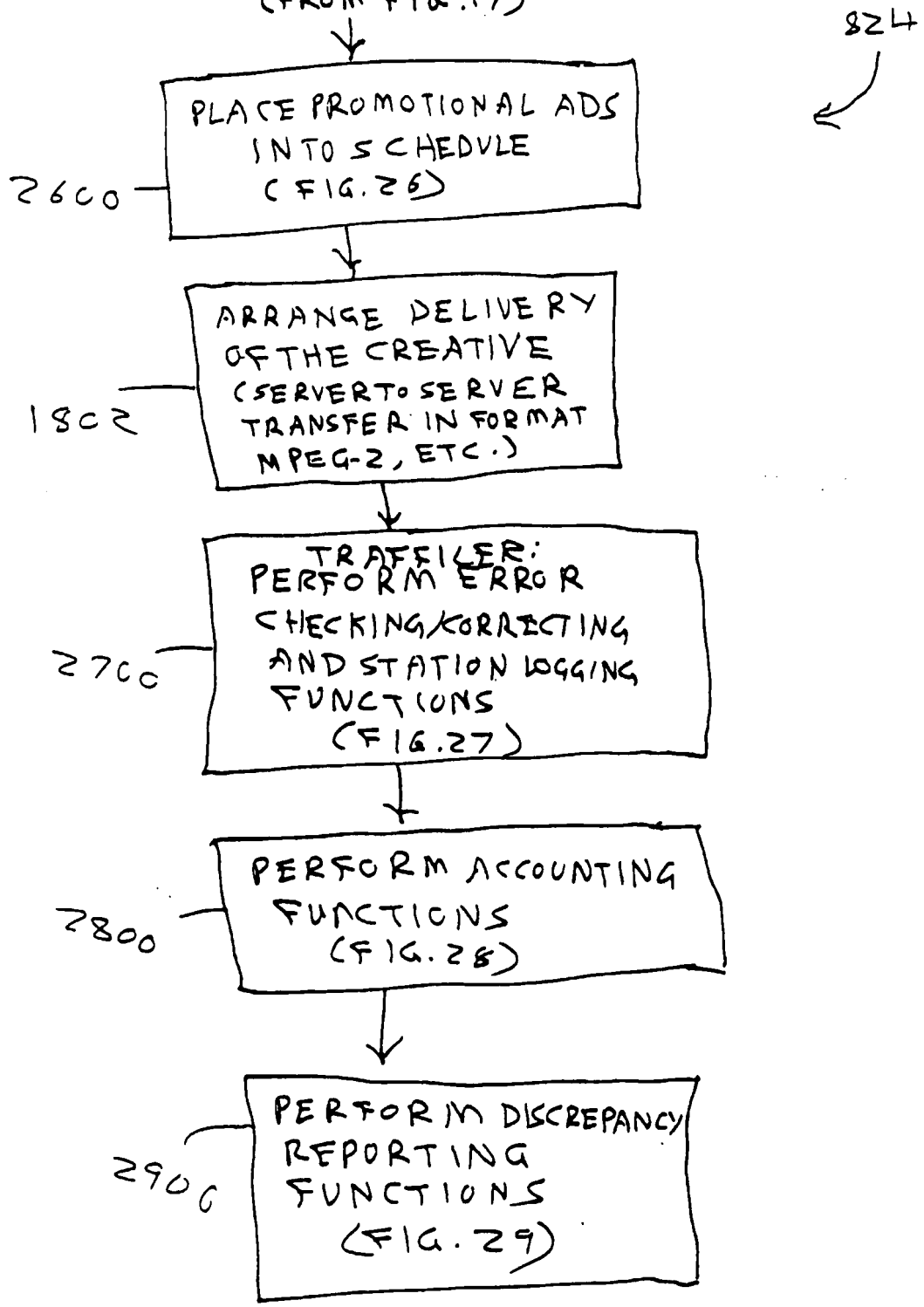


FIG. 19 USER CREATION

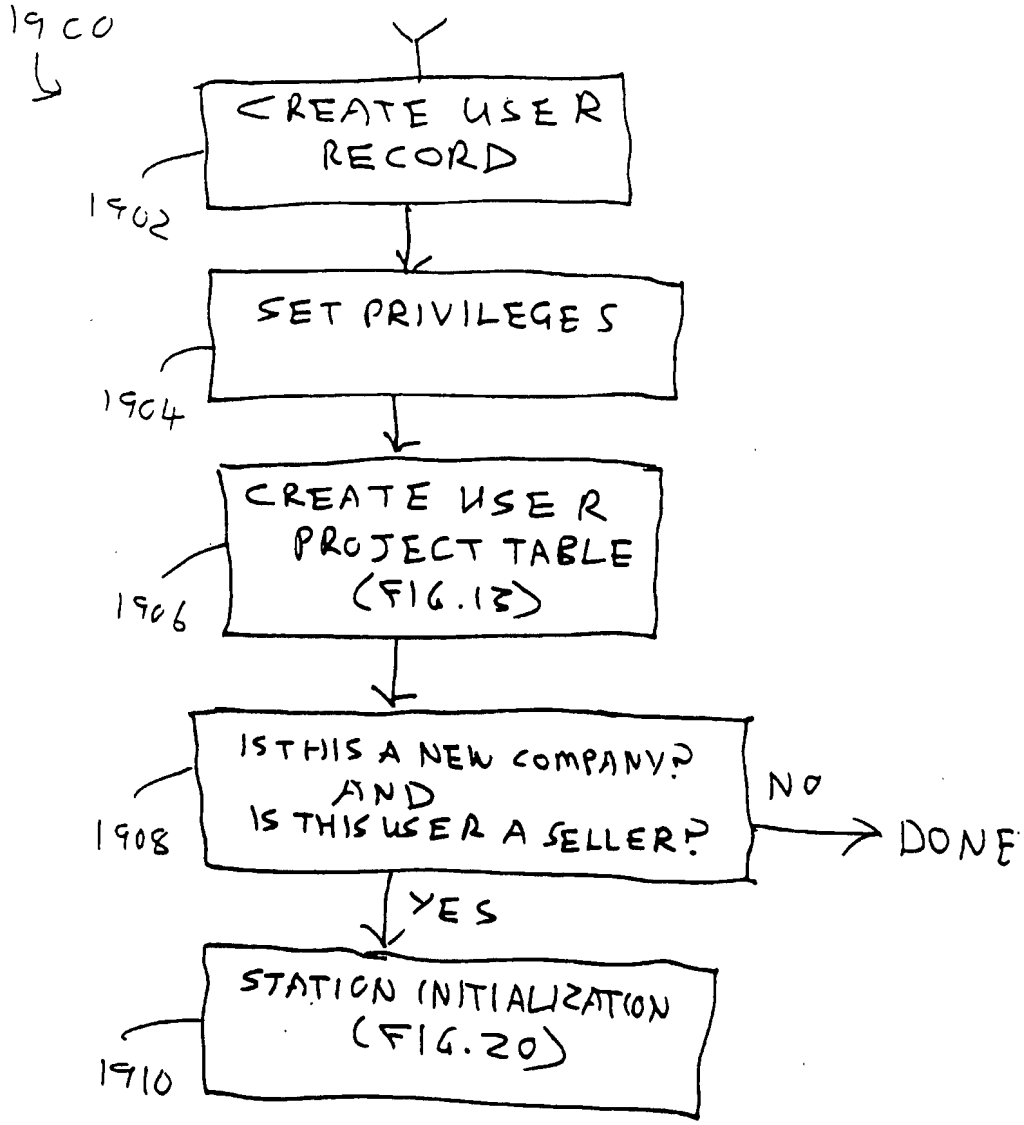


FIG. 20 STATION INITIALIZATION

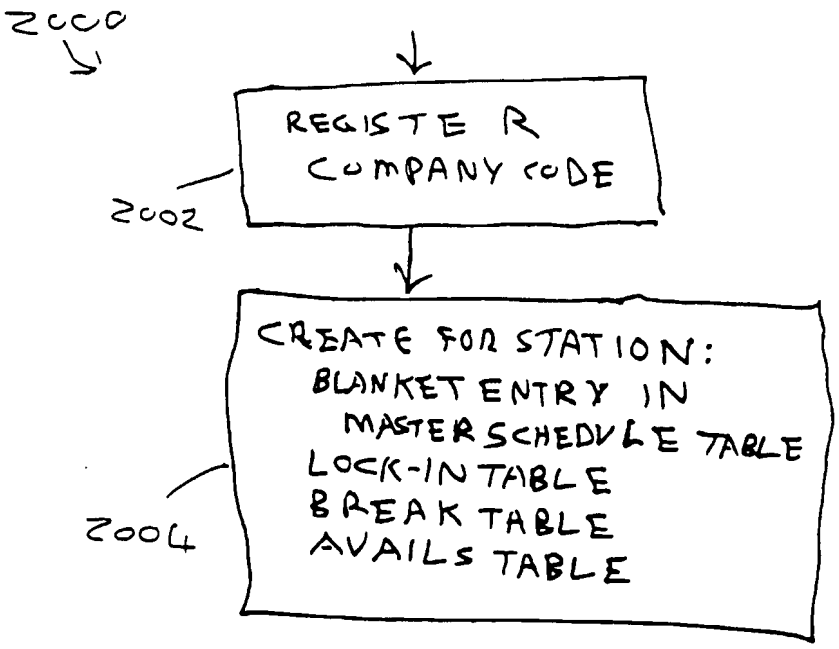


FIG. 21 CREATION OF SCHEDULES

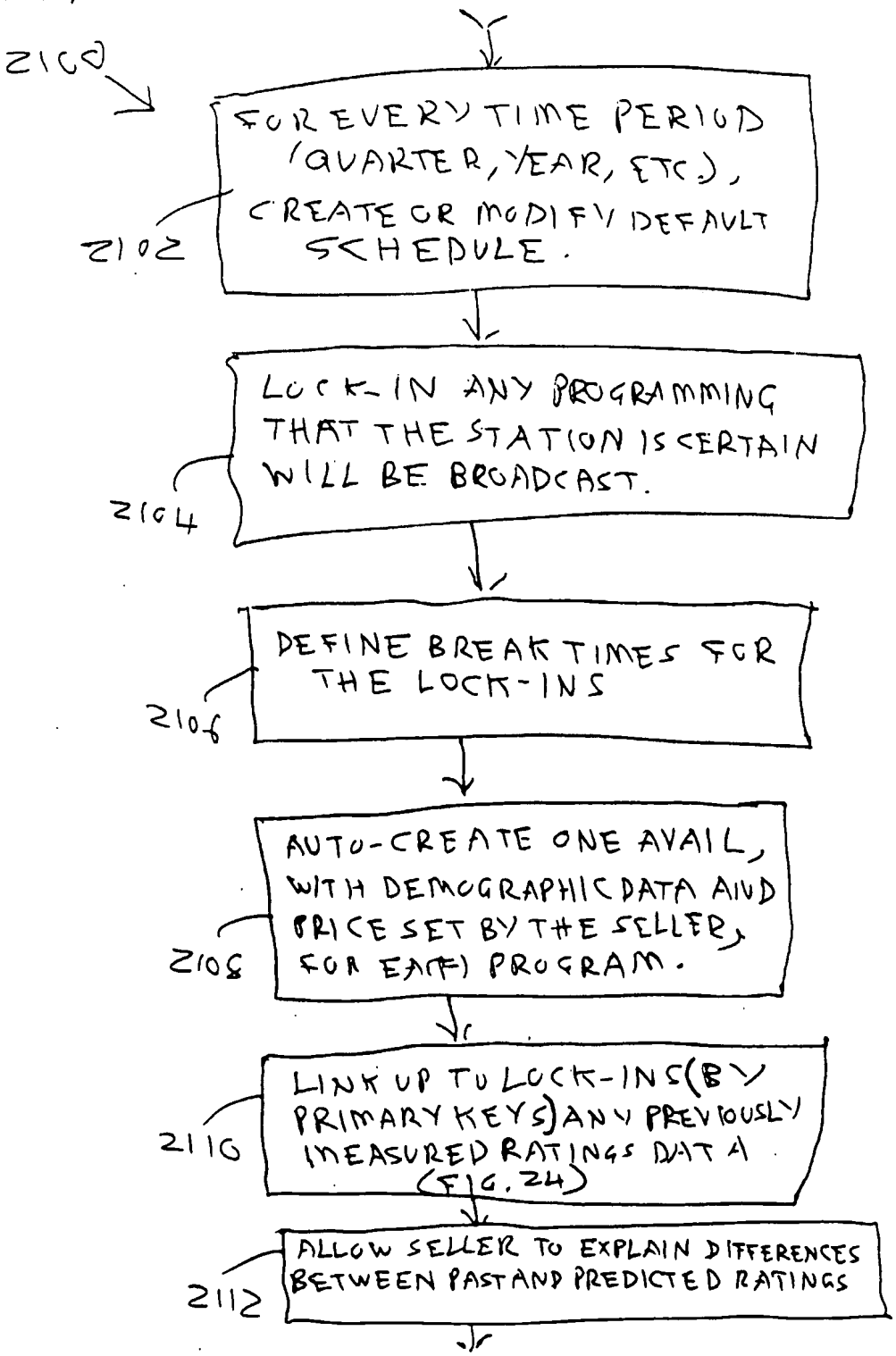


FIG. 22 CREATION AND POPULATION OF CARTS

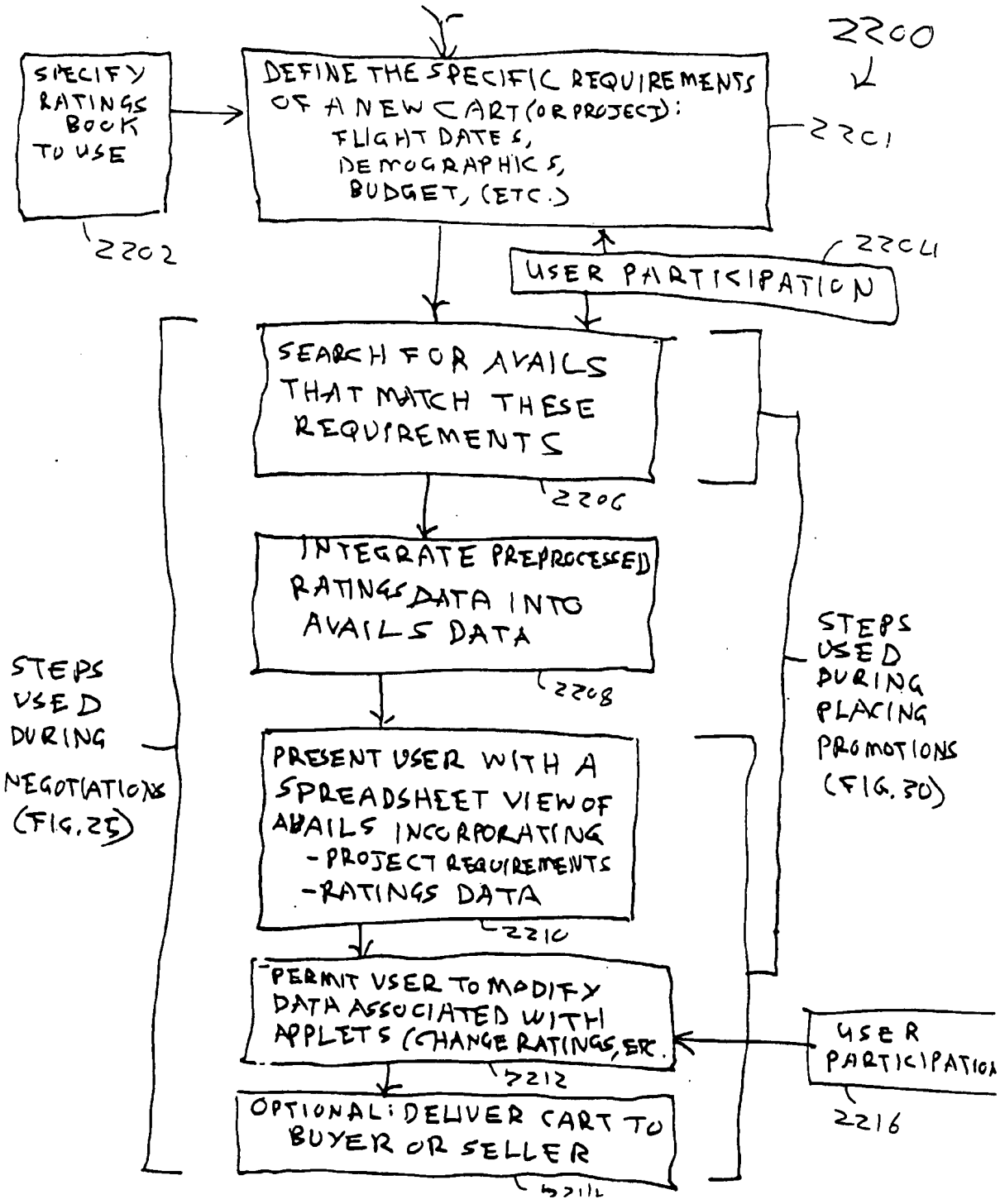


FIG. 23 PREPROCESSING OF RATINGS DATA

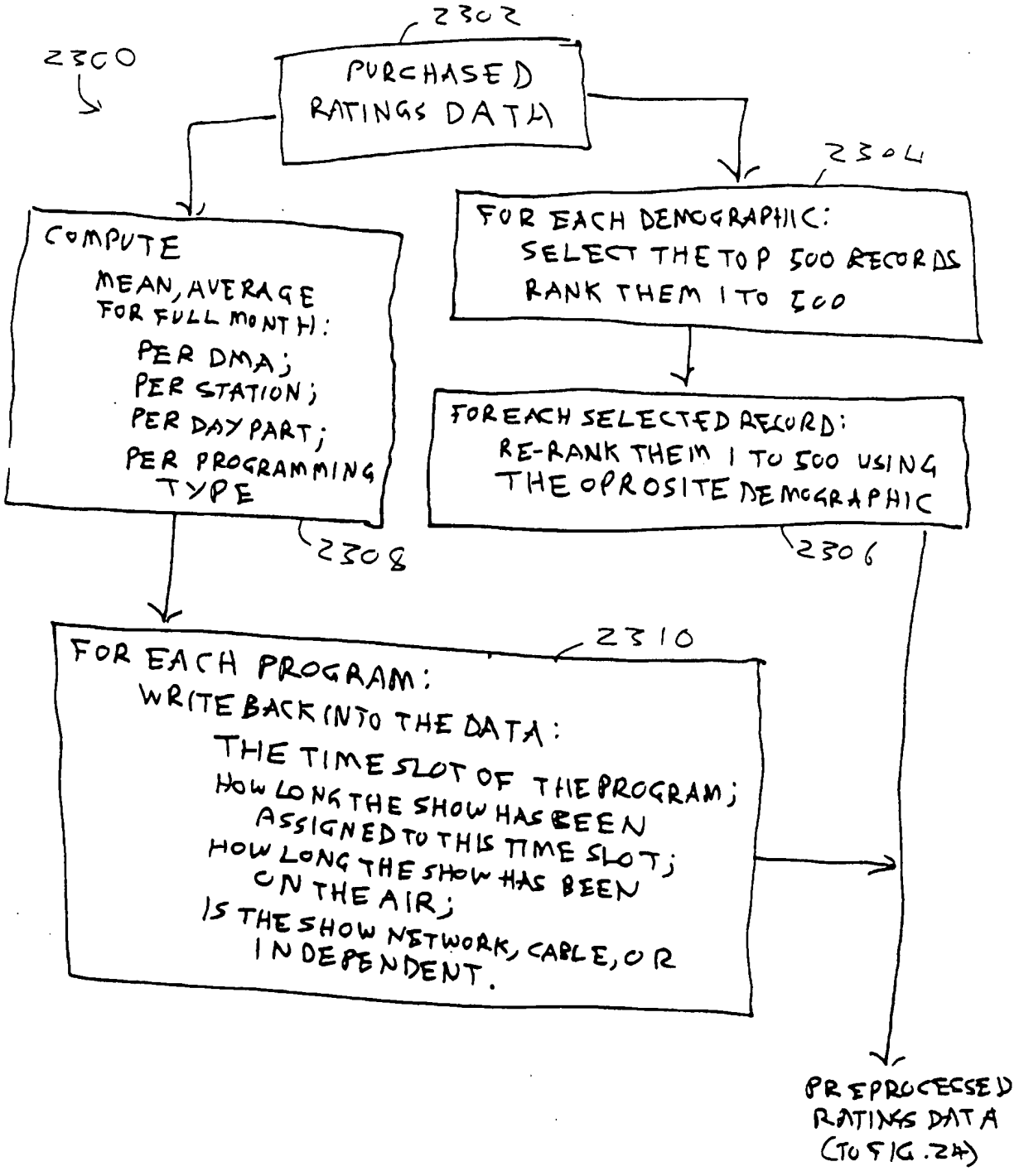


FIG. 24 INTEGRATING RATINGS DATA INTO THE DEFAULTS AND LOCK-INS

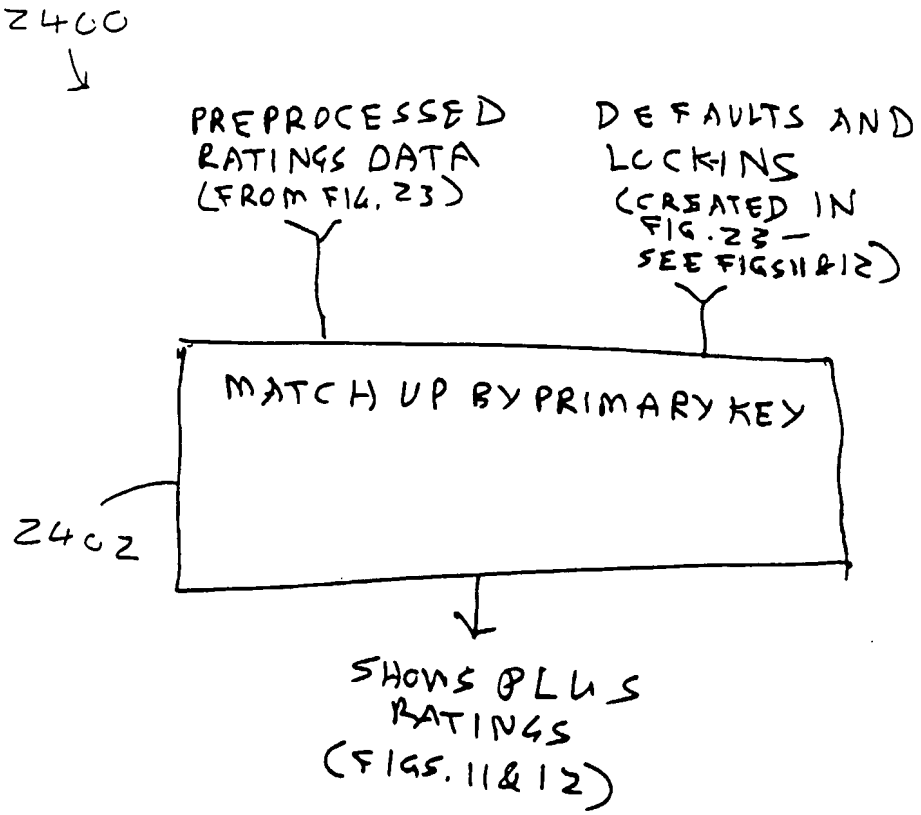


FIG. 25 NEGOTIATIONS

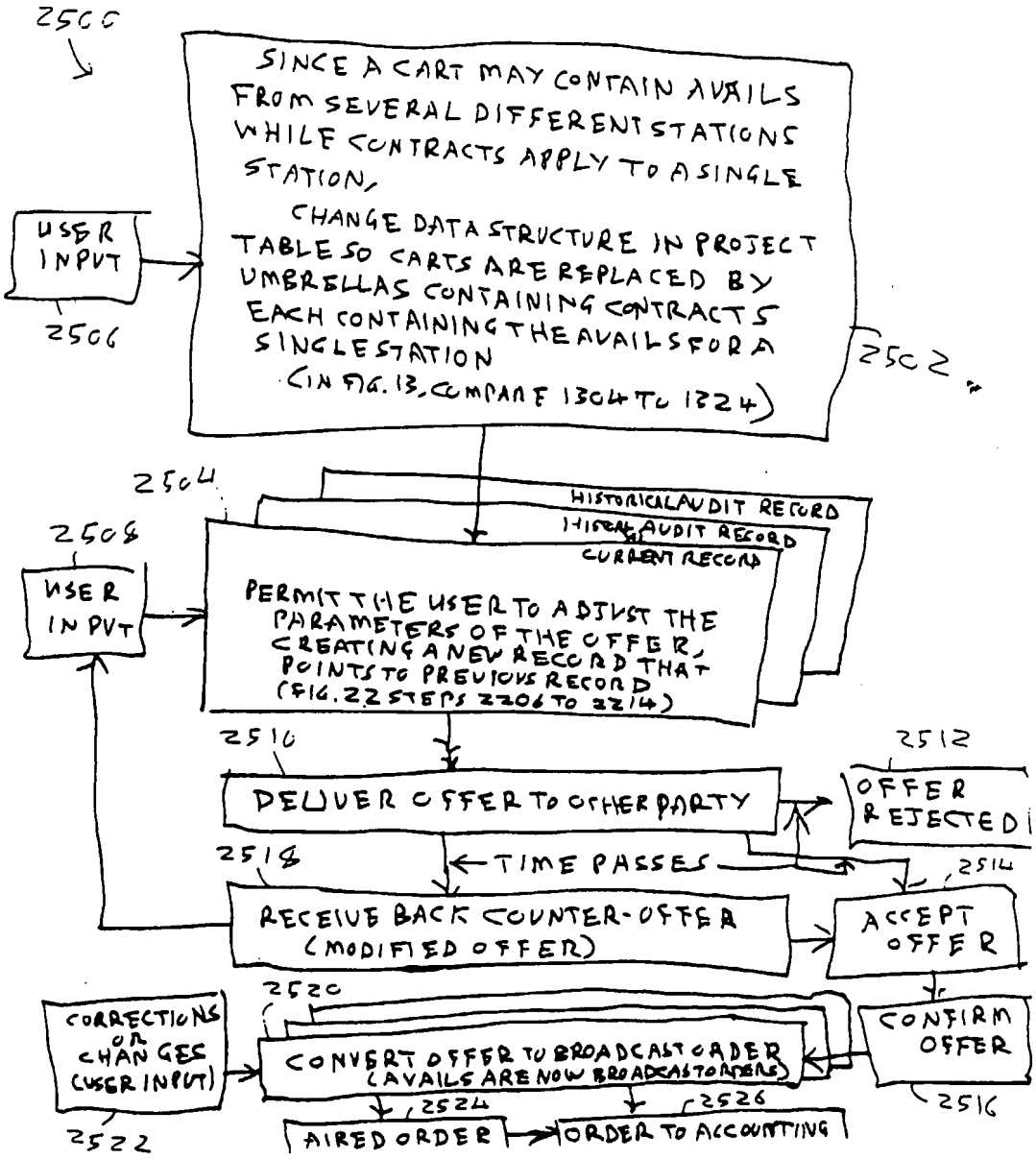


FIG. 26 PLACING PROMOTIONS

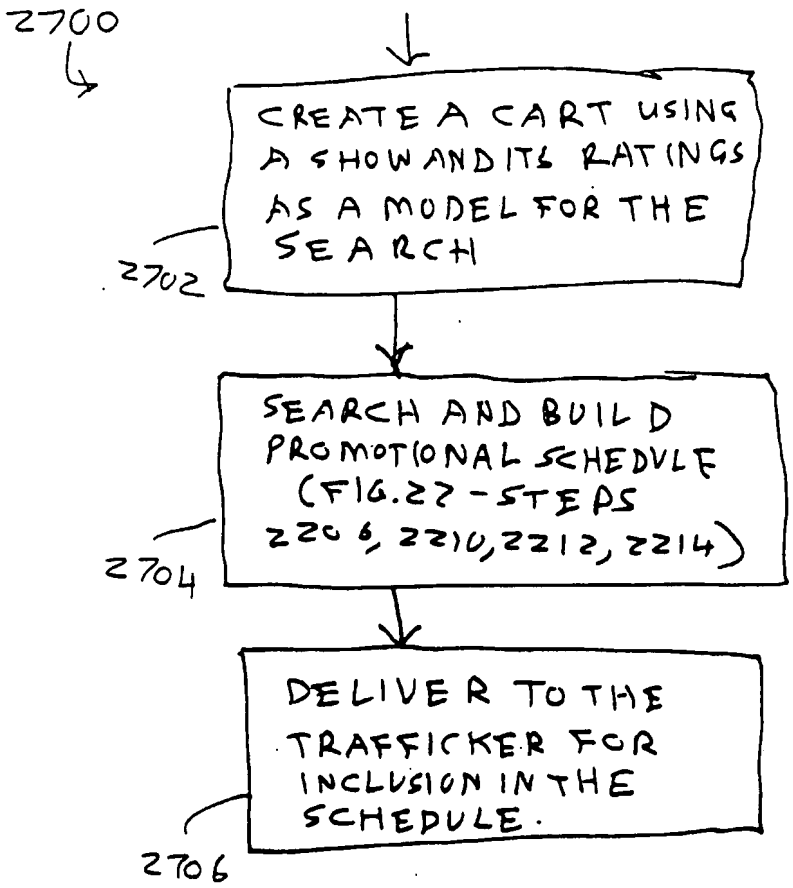


FIG. 27 STATION LOGGING, ERROR CHECKIN

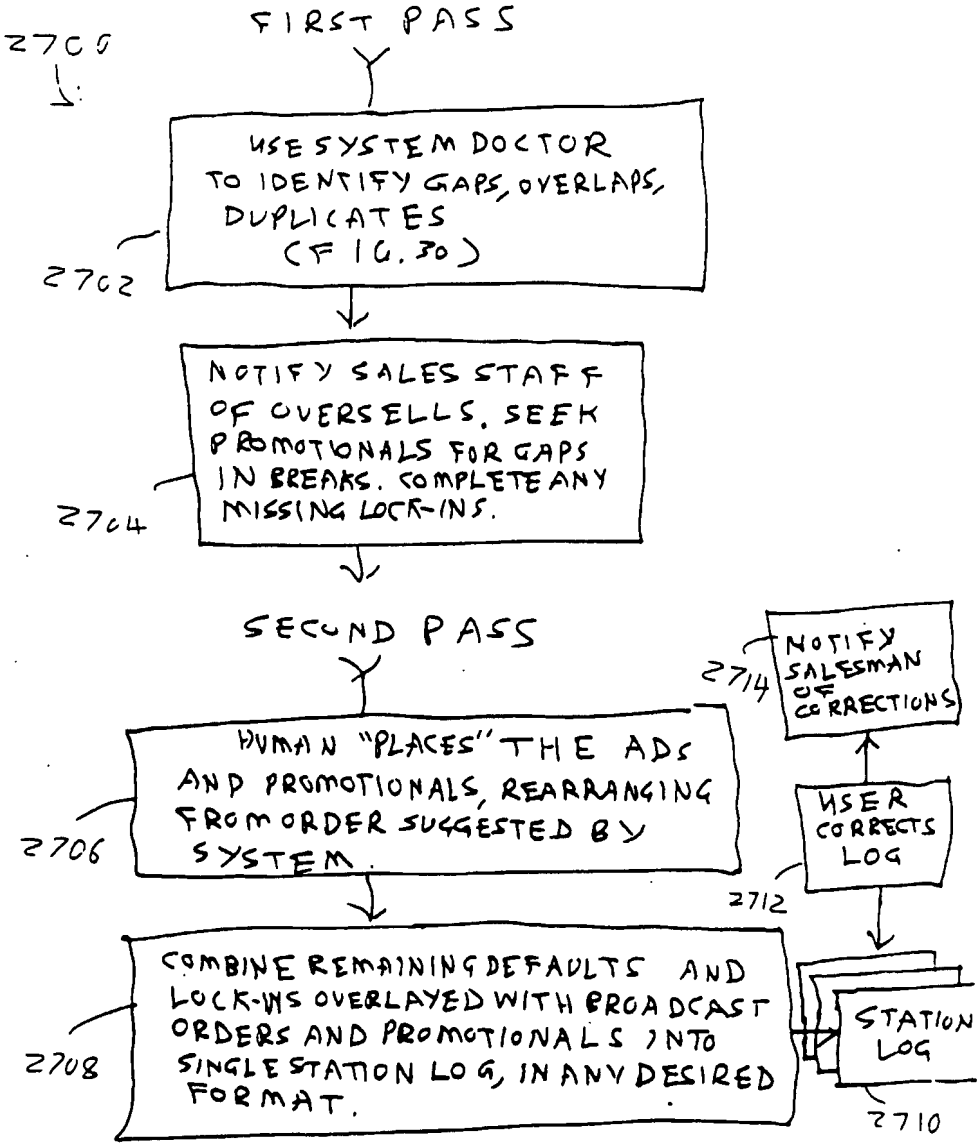


FIG. 28 ACCOUNTING

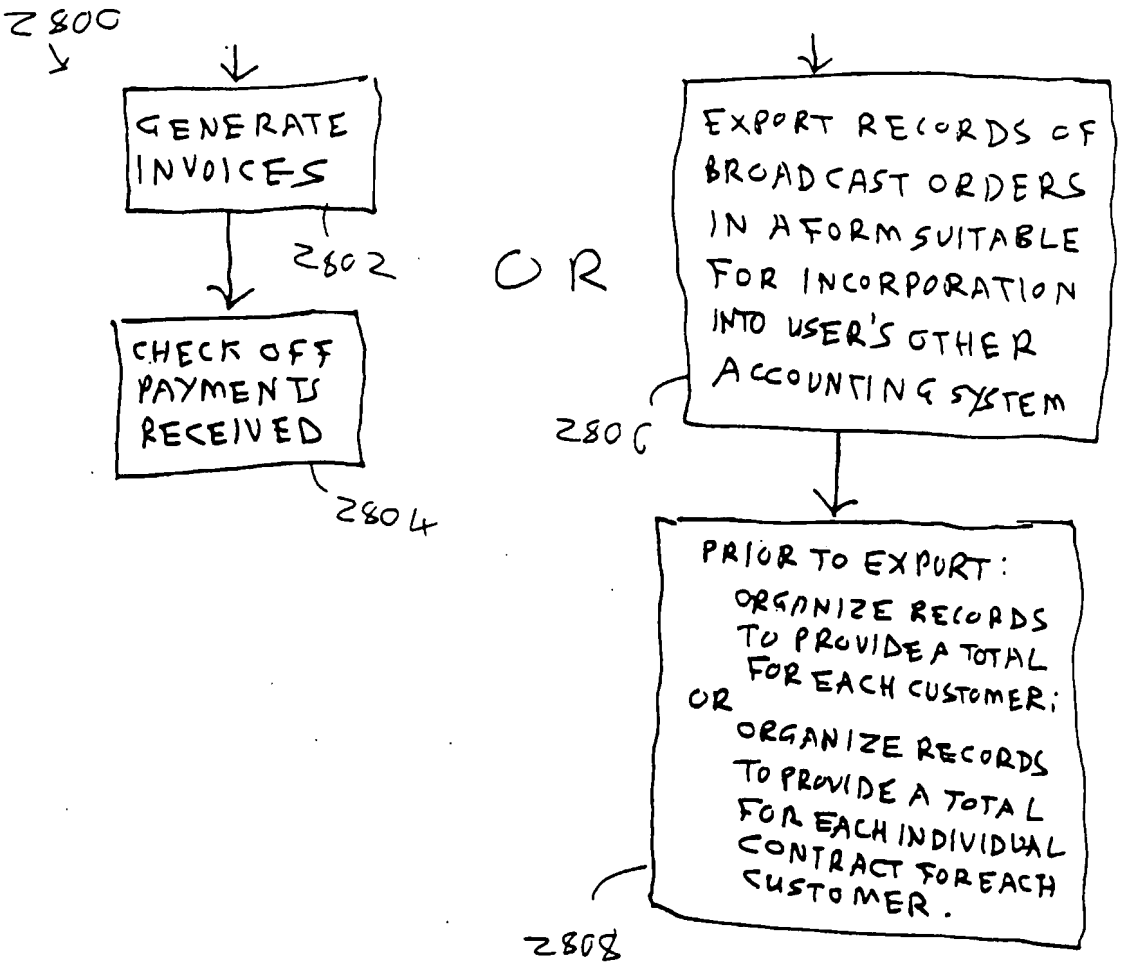


FIG. 29 DISCREPANCY REPORTING

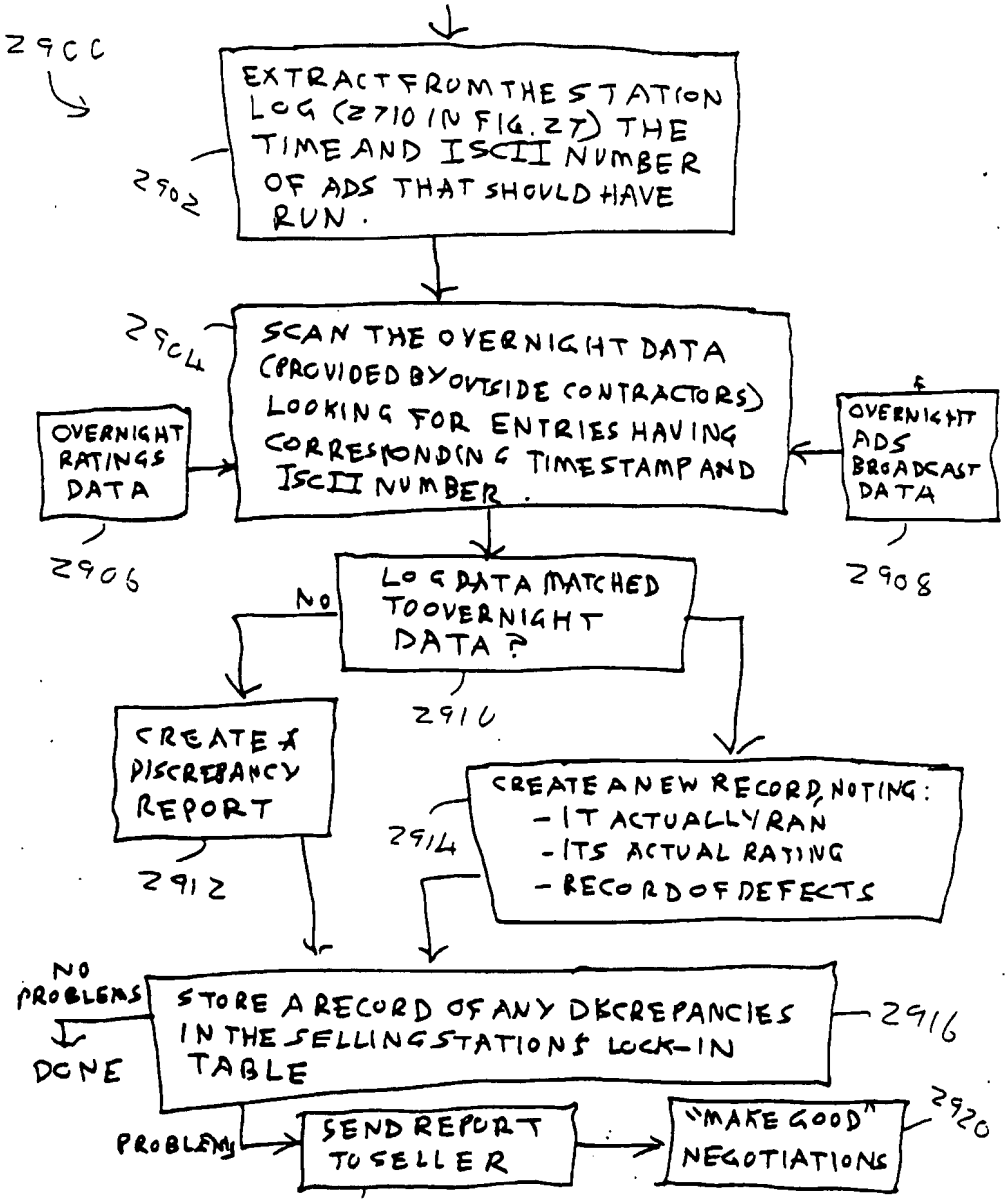


FIG. 30 SYSTEM DOCTOR

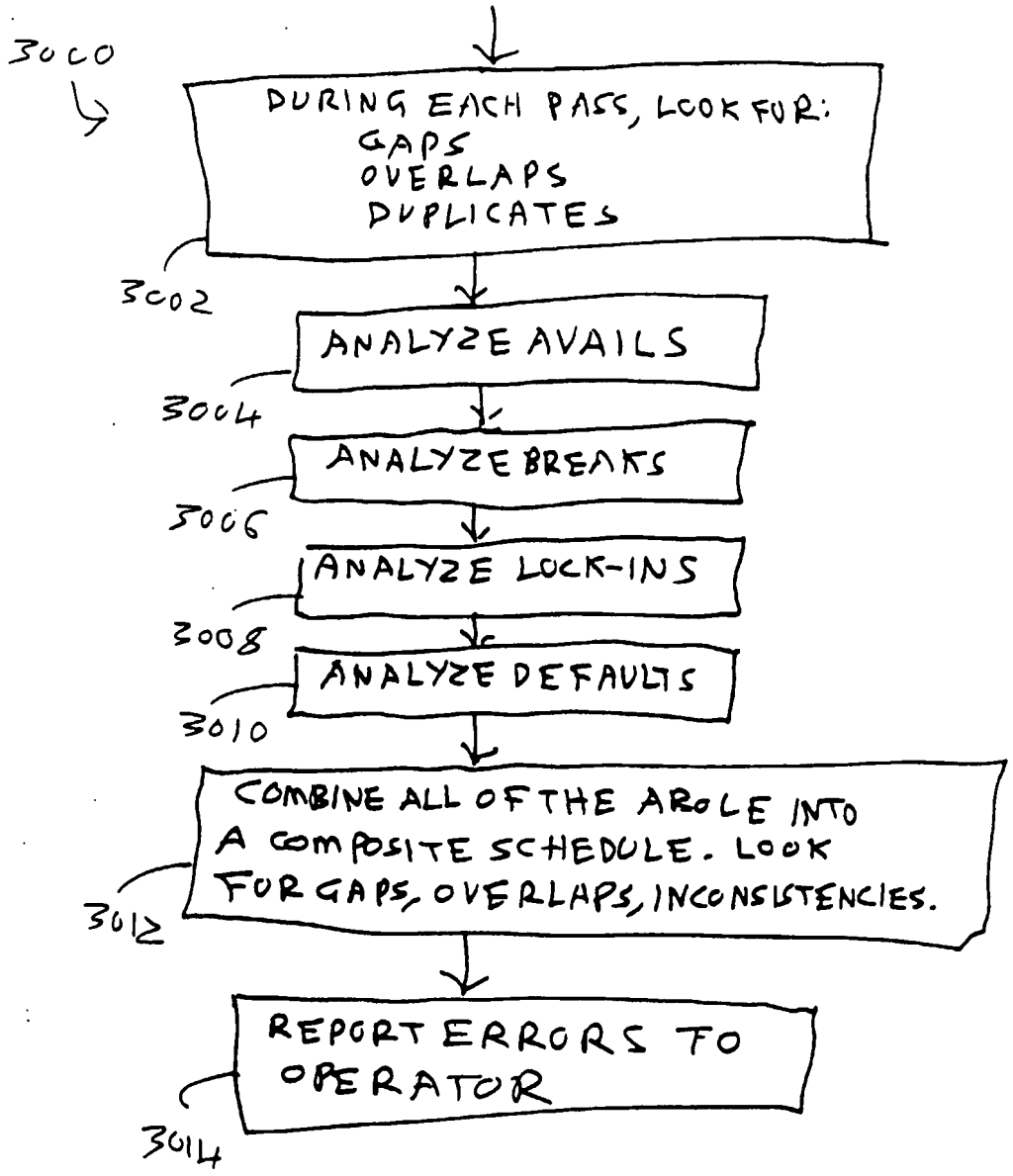
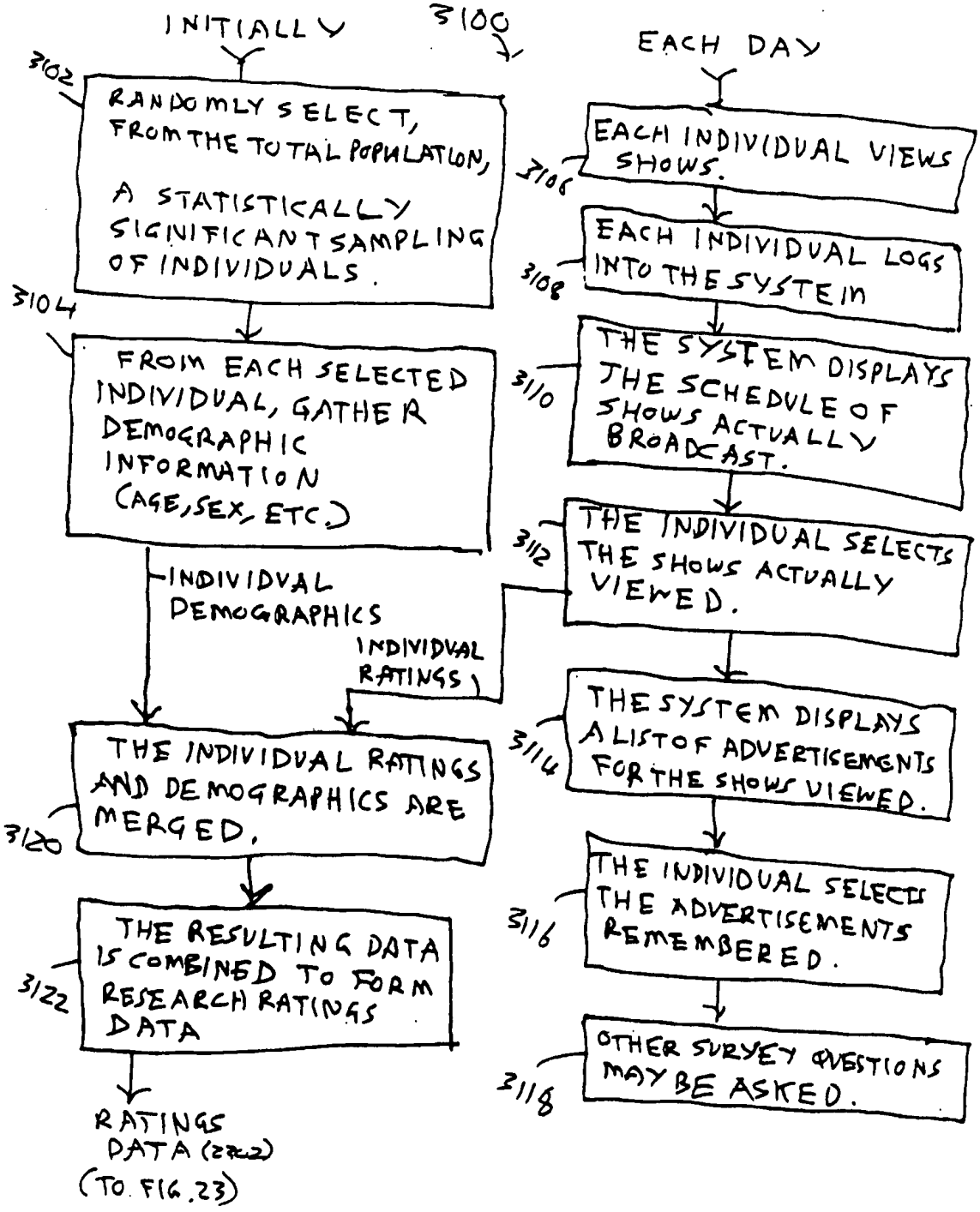



FIG. 3) RATINGS AND OPINION GATHERING